R-6R50(W)/(B)
R-6G50(W)/(B)
R-6G52(W)/(B)
R-6R70(W)/(B)

SHARP® SERVICE MANUAL

S6818R6R50EHW

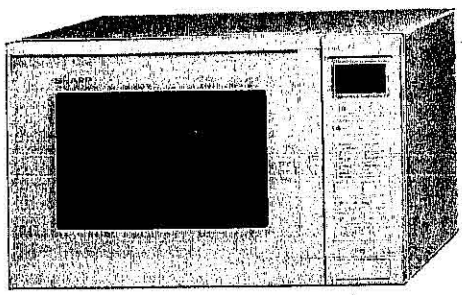


Photo R-6R50(W)

GRILL AND MICROWAVE OVEN

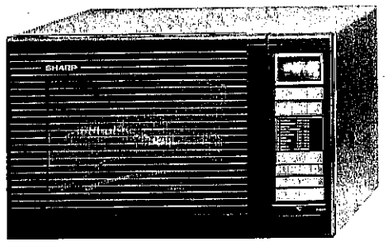
MODELS R-6R50(W)/(B)
R-6G50(W)/(B)
R-6G52(W)/(B)
R-6R70(W)/(B)

In interests of user-safety the oven should be restored to its original condition and only parts identical to those specified should be used.
(RD16101U)

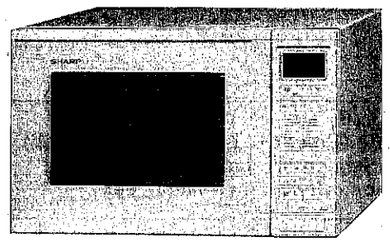
This is a supplemental Service Manual for Model R-6R50(W)/(B) etc.
Those models are quite similar to Base Model R-6G10(W)/(B) (Refer No. is S5809R6G10EHW).
Use this supplemental manual together with the Base Model Service Manual.
Refer to the Base Model Service Manual for complete operation, service information, etc.
(RD17101U)

TABLE OF CONTENTS

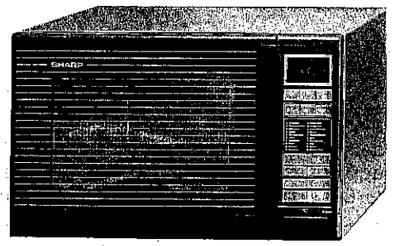
SHARP CORPORATION



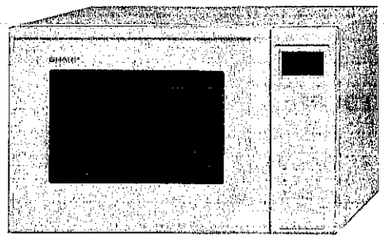
R-6G50(B)



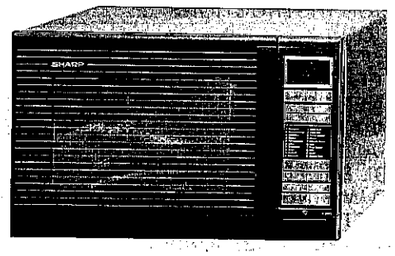
R-6R50(W)



R-6R50(B)



R-6R70(W)



R-6R70(B)

SERVICE MANUAL

SHARP

GRILL AND MICROWAVE OVEN

R-6R50(W)/(B)/ R-6G50(W)/(B)/ R-6G52(W)/(B)/ R-6R70(W)/(B)

FOREWORD

This Manual has been prepared to provide Sharp Corp. Service Personnel with complete Operation and Service Information for the SHARP GRILL AND MICROWAVE ovens, R-6R50(W)/(B)/ R-6G50(W)/(B)/ R-6G52(W)/(B)/ R-6R70(W)/(B).

The Models R-6R50(W)/(B)/ R-6G50(W)/(B)/ R-6G52(W)/(B)/ R-6R70(W)/(B) are quite similar to Base Model R-6G10(W)/(B) (Refer No. S5809R6G10EHW).

It is recommended that service personnel carefully study the entire text of this manual and Base Model manual, so they will be qualified to render satisfactory customer service.

Check interlock switches and door seal carefully. Special attention should be given to avoid electrical shock and microwave radiation hazard.

(RD36102U)

CAUTION
MICROWAVE RADIATION

Personnel should not be exposed to the microwave energy which may radiate from the magnetron or other microwave generating devices if it is improperly used or connected. All input and output microwave connections, waveguides,flanges and gaskets must be secured. Never operate the device without a microwave energy absorbing load attached. Never look into an open waveguide or antenna while the device is energized.

Note(Parts List) : The parts marked "*" are used in voltage more than 250V.

(RD36202U)

SHARP CORPORATION

OSAKA, JAPAN

(RD37201U)

PRODUCT DESCRIPTION

SPECIFICATION

ITEM	DESCRIPTION
Power Requirements	220 Volts 50 Hertz Single phase, 3 wire earthed
Power Consumption	Microwave cooking 1.25 kW Dual cooking 2.55 kW (Except R-6R50) Grill cooking 1.35 kW
Power Output	600 watts nominal of RF microwave energy (2 liter water load) Operating frequency of 2450MHz
Grill Heating element Power Output	1.3 kW
Case Dimensions	Width 520 mm Height 341 mm including foot Depth 416 mm
Cooking Cavity Dimensions	Width 340 mm Height 203 mm Depth 350 mm
Turntable diameter	330mm
Control Complement	Touch Control System Clock(1:00 - 12:59) Timer (0 - 99 min. 99 sec.) Microwave Power for Variable Cooking Repetition Rate; FULL POWER ..... Full power throughout the cooking time ROAST ..... approx. 70% of Full Power SIMMER ..... approx. 50% of Full Power DEFROST ..... approx. 30% of Full Power WARM ..... approx. 10% of Full Power

FUNCTION	R-6R50	R-6G50,R-6G52	R-6R70
Microwave Pads	●	●	●
Dual Pads	–	●	●
Grill cooking	●	●	●
Rotisserie Pad	●	–	●
Compu Cook pad	●	●	●
Easy Defrost pad	●	●	●
Less / More pads	●	●	●
kg / Pcs pad	●	●	●
g pad	●	●	●
Timer / Hold pad	●	●	●
Auto Start / Clock pad	●	●	●
Stop / Clear pad	●	●	●
Minute Plus / Start pad	●	●	●

Numeral keys : 10min. 1min. 10sec.

Set Weight	Approx. 23 kg

(RD44101U)

NOTE: Numbers and letters shown after sentences such as "RD44101U" are for factory use only.

GENERAL INFORMATION

WARNING

THIS APPLIANCE MUST BE EARTHED

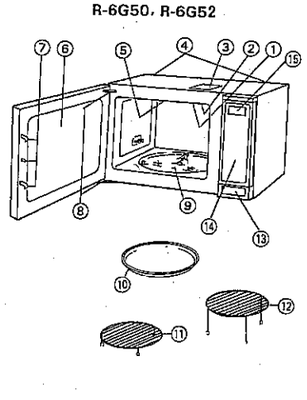
IMPORTANT

THE WIRES IN THIS MAINS LEAD ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE:

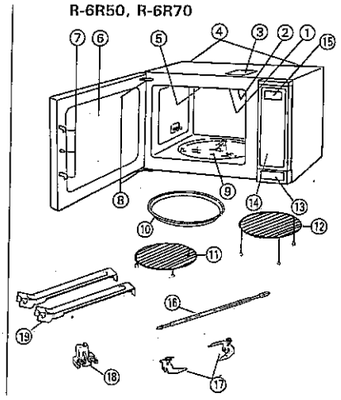
GREEN-AND-YELLOW	: EARTH
BLUE	: NEUTRAL
BROWN	: LIVE

OPERATING INSTRUCTIONS

R-6G50, R-6G52

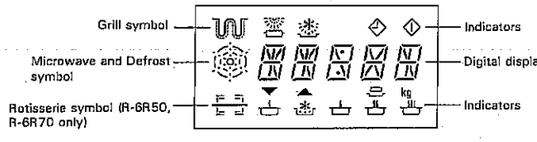


R-6R50, R-6R70

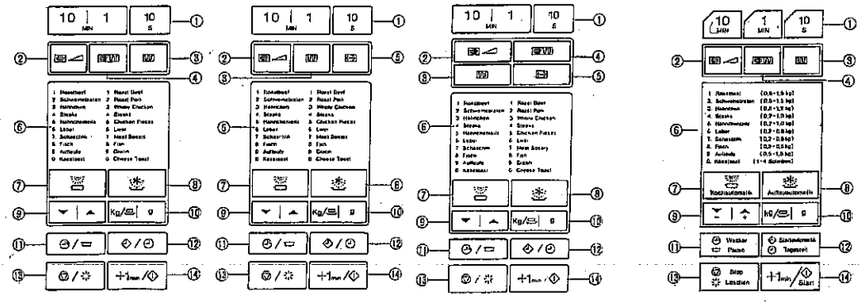


1. Waveguide cover
2. Oven lamp
3. Access cover for oven lamp replacement
4. Ventilation openings
5. Grill heater unit (See page E-19)
6. Oven door with see-through window
7. Door latches
8. Hinges
9. Roller stay
10. Removable turntable
11. Low rack (50 mm)
12. High rack (135 mm)
13. Door open button (▽)
14. Auto-Touch control panel
15. Digital readout
16. Skewer (R-6R50, R-6R70 only)
17. Prongs (R-6R50, R-6R70 only)
18. Skewer support (R-6R50, R-6R70 only)
19. Handles (R-6R50, R-6R70 only)

NOTES:
THE SKEWER SUPPORT IS FOR ROTISSERIE COOKING ONLY.
AFTER ROTISSERIE COOKING IS FINISHED, REMOVE THE SKEWER SUPPORT AND STORE WITH OTHER ACCESSORIES.



① Time pad
② MICROWAVE pad
③ GRILL pad
④ DUAL COOK pad
⑤ ROTISSERIE pad
⑥ Menu Guide
⑦ COMPUCOOK pad
⑧ EASY DEFROST pad
⑨ MORE/LESS pad
⑩ Weight pad
⑪ TIMER/HOLD pad
⑫ AUTO START/CLOCK pad
⑬ STOP/CLEAR pad
⑭ MINUTE PLUS/START pad



(R-6G50) (R-6R50) (R-6R70) (R-6G52)

OPERATION

DESCRIPTION OF OPERATING SEQUENCE

The following is a description of component functions during oven operation.

(RD71101U)

OFF CONDITION

Closing the door activates all door interlock switches : 1st latch switch, 2nd latch switch, heater switch and stop switch (In this condiction, the monitor switch COM-NC contacts are opened.)
When oven is plugged in, 220 volts A.C. is supplied to CPU unit. (Figure 0-1)
The display will show blashing "88:88".
To set any program or set the clock, you must first touch (stop/clear) pad. The display will clear, and 1:00 will appear and count up every minute.
NOTE: When the door is opened, the oven lamp comes on.

COOKING CONDITION

FULL POWER COOKING

Program desired cooking time and Variable Cooking Control by touching the time pads and (MICROWAVE) pad. When the (MINUTE PLUS/START) pad is touched, the following operations occur:

1. The contacts of relays are closed and components connected to the relays are turned on as follows. (For details, refer to Figure O-2)

RELAY	CONNECTED COMPONENTS
RY-1	Oven lamp/Turntable motor
RY-2	Power transformer
RY-4	Fan motor
RY-5	Rotisserie motor

Note: (1)The surge relay (not shown above table) comes on only for 200 mili seconds directly after 'MINUTE PLUS/START' pad touched, with closing its contacts. After that, the surge relay is de-energied and its contacs are opened.
(2)The relay RY-5 is provided to Model R-6R50 and R-6R70 only.
The rotisserie motor is activated only at the (ROTISSERIE) pad is touched befor touching the (MINUTE PLUS/START) pad.

2. 220 volts A.C. is supplied to the primary winding of the power transformer and is converted to about 3.3 volts A.C. output on the filament winding, and approximately 2000 volts A.C. on the high voltage winding.
3. The filament winding voltage heats the magnetron filament and the H.V. winding voltage is sent to a voltage doubler circuit.
4. The microwave energy produced by the magnetron is channeled through the waveguide into the cavity feed-box, and then into the cavity where the food is placed to be cooked.
5. Upon completion of the cooking time, the power transformer, oven lamp, etc. are turned off, and the generation of microwave energy is stopped. The oven will revert to the OFF condition.
6. When the door is opened during a cook cycle, the switches operate as following.

Switch	Contact	During Cooking	Door Opened
1st Latch Switch	COM-NO	Closed	Open
2nd Latch Switch	COM-NO	Closed	Open
Heater Switch	COM-NO	Closed	Open
Stop Switch	COM-NO	Closed	Open
Monitor Switch	COM-NC	Open	Closed
	COM-NO	Closed	Open

The circuits to the turntable motor, the cooling fan motor, the rotisserie motor (for R-6R50 and R-6R70), and the high voltage components are deenergized, the oven lamp remains on, and the digital readout displays the time still remaining in the cook cycle when the door is opened.

7. The monitor switch is electrically monitoring the operation of the 1st latch switch and is mechanically associated with the door so that it will function in the following sequence.
   (1) When the door opens from a closed position, the 1st latch switch open that contacts, and then the monitor switch contacts (COM-NC) close.
   (2) When the door is closed from the open position, the monitor switch (COM-NC) contacts first open, and then the contacts of the 1st latch switch close.

If the 1st latch switch fails with its contacts closed when the door is opened, the closing of the monitor switch contacts (COM-NC) will form a short circuit through the fuse, 1st latch switch, causing the monitor fuse to blow.

ROAST, SIMMER, DEFROST, WARM COOKING

When Variable Cooking Power is programed, the 220 volts A.C. is supplied to the power transformer intermittently through the contacts of relay(RY-2) which is operated by the control unit within a 32 second time base. Microwave power operation is as follows:

VARI-MODE	ON TIME	OFF TIME
FULL POWER (100% power)	32 sec.	0 sec.
ROAST (approx. 70% power)	24 sec.	8 sec.
SIMMER (approx. 50% power)	18 sec.	14 sec.
DEFROST (approx. 30% power)	12 sec.	20 sec.
WARM (approx. 10% power)	6 sec.	26 sec.

Note: The ON/OFF time ratio does not correspond with the percentage of microwave power, because approx. 2 seconds are needed for heating of the magnetron filament.

EASY DEFROST COOKING

The EASY DEFROST key is a special function key to defrost meats and other food faster and better.
EASY DEFROST automatically defrosts foods.
This key has 4 defrost stages.
When the food weight is entered by using the weight pads, the oven will cook according to the special cooking sequence, refer to Easy Defrost Chart on Operation Manual.

GRILL COOKING CONDITION

In this condition the food is cooked by grill heating element energy.
Program desired cooking time and grill mode by touching the time pad and (GRILL) pad.
When the (MINUTE PLUS/STAR) pad is touched, the grill heating element etc. come on by activating the relays, refer to Figure O-3 for details.

Note:
(1)For relay RY-5, refer to 'Note' of 'Full Power Cooking' section.
(2)The relay RY-4 contacts hold ON-condition and the fan motor rotate for one minute after completion of the grill cooking or dual cooking, and if the temperature of the cooling thermal cut-out is higher than 100 °C, the fan motor continues to rotate until the temperature of the thermal cut-out becomes lower than 80 °C.

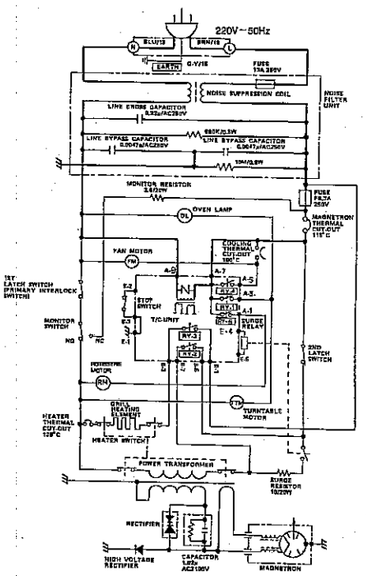
DUAL COOKING CONDITION

(Model R-6G50,-6G52,-6R70)

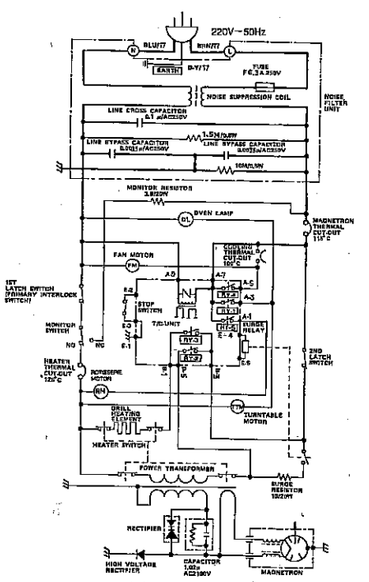
In this condition the food is cooked by both microwave energy and grill heating element energy simultaneously. Program desired cooking time and dual cooking mode by touching the time pad and the (DUAL COOK) pad.
When the (MINUTE PLUS/START) pad is touched, the magnetron and the grill heating element etc. come on by activating the relays, refer to Figure O-5 for details.

COMPU COOK CONDITION

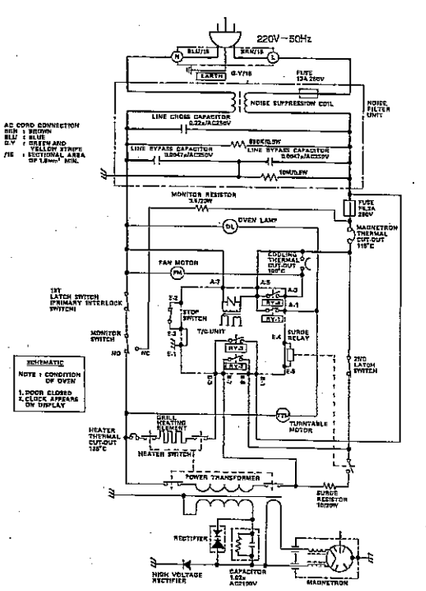
COMPU COOK automatically selects the cooking mode and compute the cooking time for baking, roasting and grilling. It is based on specific foods and the quantity or weight of the food.
Program the COMPU COOK mode by touching the (COMPU COOK) pad, enter the weight of the food by touching the or (weight) pad or enter the quantity of the food by touching the (weight) pad, and touch (MINUTE PLUS/START) pad.
The oven will generate the microwave energy and/or grill heating energy according to the programed special cooking sequence.



Model R-6R70

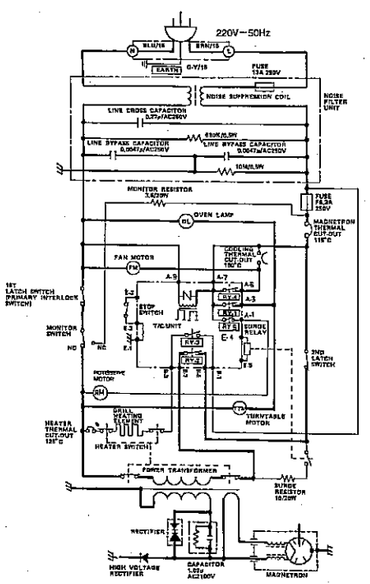


Model R-6R50

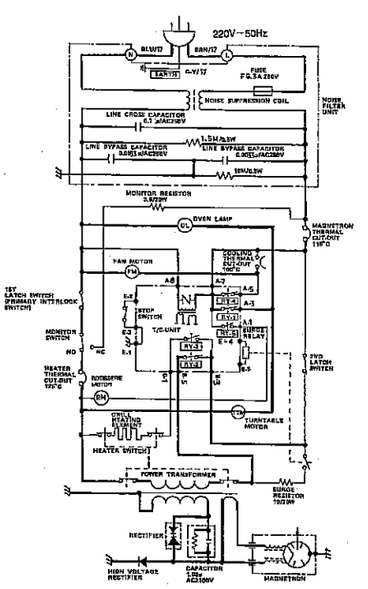


Model R-6G50 and R-6G52

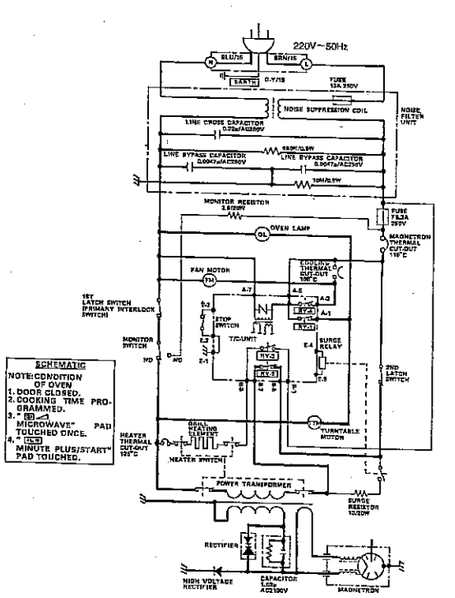
Figure O-1. OFF Condition



Model R-6R70

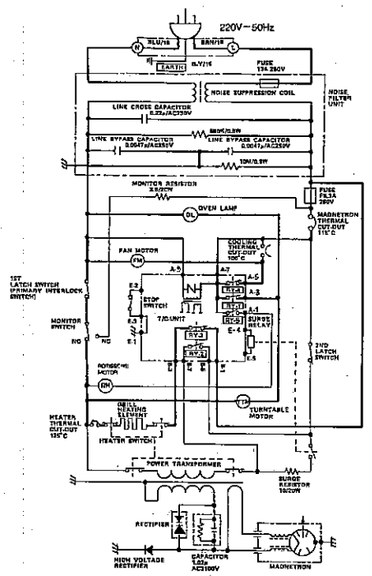


Model R-6R50

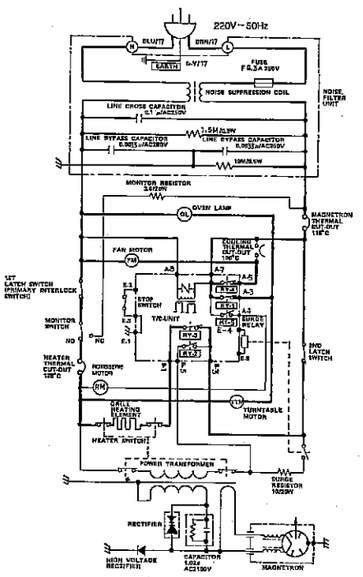


Model R-6G50 and R-6G52

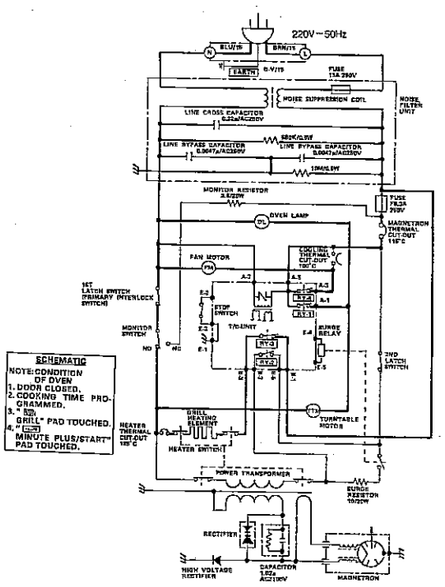
Figure O-2. Microwave Cooking Condition



Model R-6R70

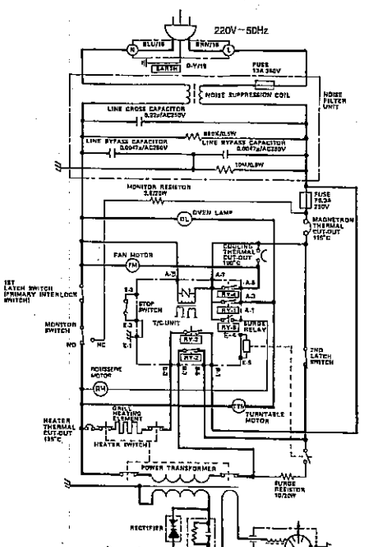


Model R-6R50

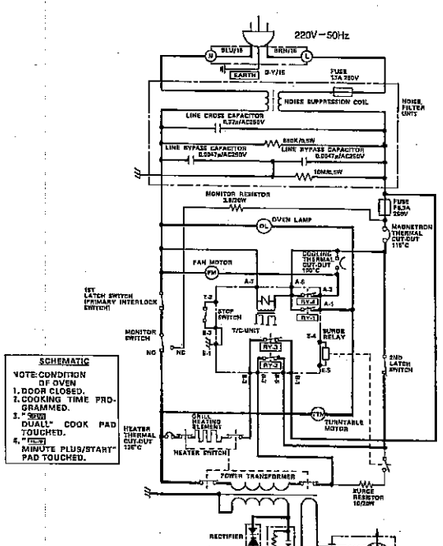


Model R-6G50 and R-6G52

Figure O-3. Grill Cooking Condition

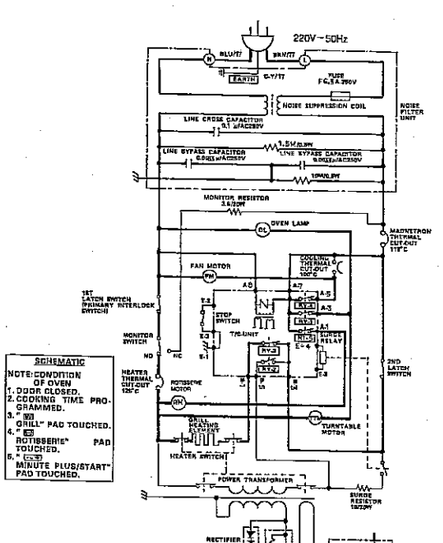


Model R-6R70



Model R-6G50 and R-6G52

Figure O-5. Dual Cooking Condition



Model R-6R50

Figure O-4. Grill Cooking Condition with Rotisserie

DESCRIPTION AND FUNCTION OF COMPONENTS

1ST LATCH SWITCH
Operation is as follows.
1. When the door is closed, the lower latch head snaps down above the switch lever.
2. When the lower latch head pushes the switch lever. The switch lever now depresses the plunger of the switch closing its COM-NO contacts (ON condition).
3. When the open button is pressed, it pushes the open lever. The open lever raises the switch lever raising the lower latch head.
   As that time, the switch lever is released from the plunger of the 1st latch switch. The switch lever is returned to its original position.
   Now, the COM-NO contacts of the switch opened (OFF condition).

2ND LATCH SWITCH
The switch is activated by the upper latch head on the door.
When the door is opened, the switch interrupts the circuit to the magnetron or heating element etc., refer to Oven Schematic Diagram for details.

STOP SWITCH
The switch is activated by the upper latch head.
The contacts are opened at the door opened and the contacts are closed at the door closed.

MONITOR SWITCH
The monitor switch is activated (the COM-NC contacts opened) by the lower latch head on the door while the door is closed. The switch is intended to render the oven inoperative by means of blowing the fuse(F6.3A) when the contacts of the 1st latch switch fail to open when the door is opened.

Function
1. When the door is opened, the monitor switch COM-NC contacts close (to the ON condition) due to their being normally closed. At this time the 1st latch switch is in the OFF condition (contacts open) due to their being normally open contact switches.
2. As the door goes to a closed position, the monitor switch COM-NC contacts are first opened and then the 1st latch switch contacts close. (On opening the door, each of these switches operate inversely.)
3. If the door is opened, and the 1st latch switch contacts fail to open, the fuse blows simultaneously with closing of the monitor switch COM-NC contacts.

CAUTION: BEFORE REPLACING A BLOWN FUSE TEST THE 1ST LATCH SWITCH AND MONITOR SWITCH FOR PROPER OPERATION.
(REFER TO CHAPTER "TEST PROCEDURE").

NOISE FILTER UNIT
The noise filter unit prevents the radio frequency interference. And it has Fuse, refer to Oven Schematic Diagram for kind of this fuse.

SURGE RELAY AND SURGE RESISTOR
Surge relay is located on the relay mounting plate. Surge resistor is located on the chassis support.
When the cooking start button is pushed at microwave cooking or dual cooking condition, at first the surge relay contacts close and the surge current flows through the surge resistor. And then the surge relay contacts open after approx. 200 msec.
The surge resistor puts down the surge current. If the surge resistor is open or the surge relay does not operate, the home breaker, home fuse, fuse 13A 250V or fuse F6.3A 250V may break down when the cooking start button is pushed at microwave or dual cooking condition.

ROTISSERIE COOKING SYSTEM
All the surfaces of the food will be able to be grilled uniformity by rotating the food which the skewer is inserted into.

ROTISSERIE MOTOR
The rotisserie motor is located on the rotisserie motor angle assembly which is located on the right side wall of the oven cavity.
The skewer is rotated by the rotisserie motor through the rotisserie motor angle assembly.

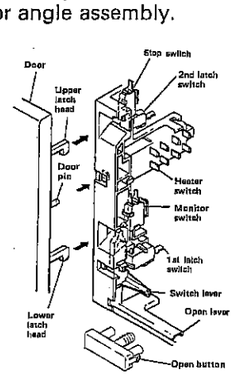


Figure D-1. Switch Operation

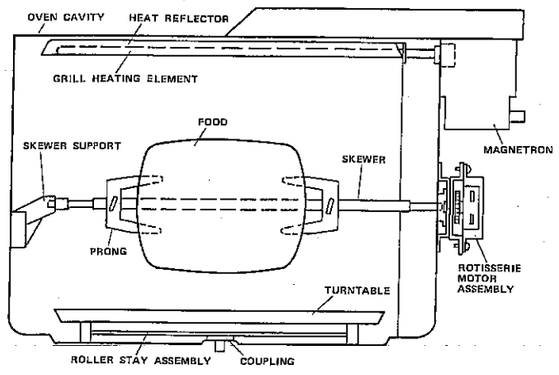


Figure D-2. Rottisserie Mechanism

SERVICING

TROUBLESHOOTING GUIDE

When troubleshooting the oven, it is helpfull to follow the Sequence of Operation in performing the checks. Many of the possible causes of trouble will require that a specific test be performed. These tests are given a procedure letter which will be found in the "Test Procedure" section.

IMPORTANT: If the oven becomes inoperative because of a blown fuse (F6.3A) in 1st latch & cook switch - the monitor switch circuit, check 1st latch & cook switch and the monitor switch before replacing the fuse (F6.3A).

PROBLEM	POSSIBLE CAUSE	TEST PROCEDURE OR CORRECTION
OFF CONDITION		
Home fuse blows when power cord is plugged into wall receptacle.	Shorted wire in power cord or wire harness.	Replace cord or check wiring.
Fuse(13A 250v) blows when power cord is plugged into wall receptacle. (For R-6G50, R-6G52, R-6R70)	Shorted wire in wire harness.	Check and repair harness, replace fuse(13A 250V).
	Defective noise filter unit.	Procedure M.
Fuse F6.3A blows when power cord is plugged into wall receptacle.	Defective monitor switch.	Procedure F.
	Shorted wire in wire harness.	Check and repair harness and replace the fuse F6.3A.
	Defective noise filter unit.(R-6R50only)	Procedure M.
88:88 do not appear in diaplay when power supply cord is plugged into wall outlet.	Defective touch control unit	Procedure P.
	Defective fuse 13A 250V.(For R-6G50, R-6G52, R-6R70)	Check and replace fuse 13A 250V.
	Defective fuse F6.3A.	Procedure N.
	Defective magnetron thermal cut-out.	Procedure H.
	Defective noise filter unit.	Procedure M.
Display does not operate properly when ⊘/✲ (STOP/ CLEAR) pad is touched.	Defective touch control unit	Procedure P.
	Defective stop switch.	Procedure E.
	Out of adjustment stop switch.	Adjust the stop switch.
Oven lamp does not light at door opened.	No power at outlet.	Check wall outlet.
	Open wire in power cord or wire harness.	Replace or repair.
	Blown fuse(F6.3A).	Procedure N.
	Blown fuse 13A 250V.(For R-6G50, R-6G52, R-6R70)	Replace the fuse 13A 250V.
	Defective noise filter unit.	Procedure M.
	Defective stop switch.	Procedure E.
	Defective oven lamp.	Replace oven lamp.
	Defective oven lamp socket.	Replace oven lamp socket.
	Defective touch control unit	Procedure P.
	Defective magnetron thermal cut-out.	Procedure H.
	Open or loose wire connection to the above components.	Replace or repair wiring.

PROBLEM	POSSIBLE CAUSE	TEST PROCEDURE OR CORRECTION

DUAL COOKING CONDITION

+1 MINUTE PLUS/ START pad is pushed, but the oven does not operate at Dual cooking condition.	The oven can not operate at Grill cooking condition.	Refer to "GRILL COOKING CONDITION".
	The oven can not operate at Microwave cooking condition.	Refer to "MICROWAVE COOKING CONDITION".
	Defective heater switch.	Procedure J.
	Defective touch control unit	Procedure P.
	Open or loose wiring to above components.	check and repair wiring.

MICROWAVE COOKING CONDITION

Oven lamp does not light.	Defective oven lamp socket.	Replace oven lamp socket.
	Defective oven lamp.	Replace oven lamp.
	Defective touch control unit	Procedure P.
	Open or loose wire connection to the above components.	Replace or repair wiring.
Fan motor does not rotate when +1 MINUTE PLUS/ START pad is touched.	Defective fan motor.	Replace fan motor.
	Defective touch control unit	Procedure P.
	Open or loose wire connection to the above components.	Replace or repair wiring.
Turntable motor does not rotate when +1 MINUTE PLUS/ START pad is touched. (Oven lamp lights.)	Open or loose wire connection to the turntable motor, 1st latch switch or monitor switch.	Check and repair wiring.
	Defective turntable motor.	Replace turntable motor.
	Defective 1st latch switch.	Procedure E.
	Defective heater thermal cut-out. (For R-6R50 only)	Procedure H.
Oven seems to be operating but little or no heat is produced in oven load. (Microwave cooking control is set at "FULL POWER" position.)	Defective magnetron.	Procedure A.
	Defective high voltage rectifier assembly.	Procedure C.
	Defective high voltage capacitor.	Procedure D.
	Defective power transformer.	Procedure B.
	Defective touch control unit	Procedure P.
	Defective 2nd latch switch.	Procedure E.
	Defective heater switch.	Procedure J.
	Open or loose wiring to above components.	Check and repair wiring
Oven does not cook properly when programmed for variabl cooking powers. (Operates properly on HIGH)	Defective touch control unit	Procedure P.
Oven goes into cook cycle, but shuts down before end of cycle.	Magnetron thermal cut-out is opened.	Procedure H.
	Defective touch control unit	Procedure P.
	Fan motor stops.	Check and repair wiring.
	Open or loose wiring to above components.	Check and repair wiring.
Oven stops as soon as when the +1 MINUTE PLUS/ START pad is touched.	Defective rectifier.	Procedure C.

PROBLEM	POSSIBLE CAUSE	TEST PROCEDURE OR CORRECTION

GRILL COOKING CONDITION

When +1 MINUTE PLUS/ START pad is touched but grill heating element does not operate.	Defective grill heating element.	Porcedure I.
	Defective touch control unit	Procedure P.
	Defective 1st latch switch. (R-6G50, R-6G52, R-6R70)	Procedure E.
	Defective 1st latch and 2nd latch switch. (R-6R50)	Procedure E.
	Defective heater socket.	Replace heater socket.
	Defective heater switch.	Procedure J.
	Defective heater thermal cut-out.	Procedure H.
	Open or loose wire connection to above components.	Check or repair wiring.
	The two terminals of grill heater unit does not fit into the heater socket.	Check and fit the two terminals of grill heater unit into the heater socket, referring "TO INSTALL THE GRILL HEATER UNIT".
Oven lamp does not light.	Defective touch control unit	Procedure P.
	Defective oven lamp socket.	Replace oven lamp socket.
	Defective oven lamp.	Replace oven lamp.
	Open or loose wire connection to the above components.	Replace or repair wiring.

PROBLEM	POSSIBLE CAUSE	TEST PROCEDURE OR CORRECTION

GRILL COOKING CONDITION (CONT'D)

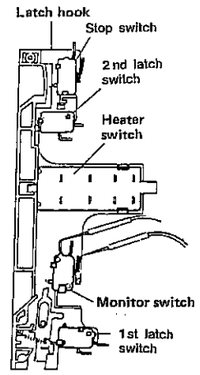
Fan motor does not rotate.	Defective fan motor.	Replace fan motor.
	Defective touch control unit	Procedure P.
	Open or loose wire connection to the above components.	Replace or repair wiring.
Turntable motor does not rotate when +1 min/⊘ MINUTE PLUS/ START pad is touched. (Oven lamp lights)	Open or loose wire connection to the turntable motor, 1st latch switch or monitor switch.	Check and repair wiring.
	Defective heater thermal cut-out. (For R-6R50 only)	Procedure H.
	Defective 1st latch switch.	Procedure E.
	Defective turntable motor.	Replace turntable motor.
The rotisserie motor assembly does not oprtate. (For R-6R50, R-6R70)	Defective touch control unit	Procedure P.
	Defective rotisserie motor assembly.	Replace rotisserie motor assrmbly.
	Defective 1st latch switch.	Procedure E.
	Defective heater thermal cut-out. (For R-6R50 only)	Procedure H.
Afer stopped the grill cooking, the fan motor does not rotate for more than 1 minute. (During cooking, it rotates)	Defective touch control unit	Procedure P.
When +1 min/⊘ MINUTE PLUS/ START pad touched, but grill heating element stops it's operate soon (after about 10 minutes).	Heater thermal cut-out is opened.	Procedure H. Check fan blade, fan duct, fan motor, air intake duct, partition plate, exhaust duct, and ventilation openings.

TEST PROCEDURES

PROCEDURE LETTER	COMPONENT TEST

F MONITOR SWITCH TEST

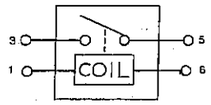
Disconnect the oven from the power supply.
Disconnect the wire lead from NC terminal of the monitor switch. Before performing this test, make sure the 1st latch switch is operating properly referring to "Switch Test Procedure".
Connect one ohmmeter lead to NC terminal of monitor switch, and the other lead to COM terminal of monitor switch, as shown figure. When the door is opened, the meter should indicate a close circuit. When the plunger of monitor switch is pushed by a screw-driver through the latch hook hole on the front plate of the oven cavity with the door opened, the meter should indicate an open circuit. In case improper operation is indicated, replace the defective monitor switch.
After testing the monitor switch, re-connect the wire lead to NC terminal of the monitor switch.



L SURGE RELAY TEST

Disconnect the connector from the wire harness (main).

CONTACTS:
With 12 volts D.C. applied to the surge relay coil (1) and (6), a check of contact with an ohmmeter should indicated (3) and (5) contacts are closed.
Without 12 volts D.C. applied to the surge relay coil (1) and (6), an ohmmeter should indicate those contacts are opened. If improper operation is indicated, replace the surge relay. If proper operation is indicated, check for loose on broken wire connections.

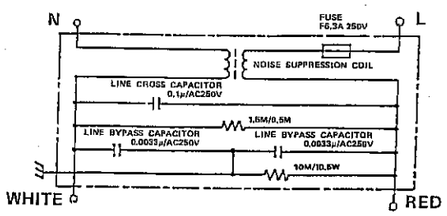


COIL:
A continuity check of the surge relay coil should indicate approximately 160 Ω. If the motor does not imdicate above ohms, replace the surge relay.

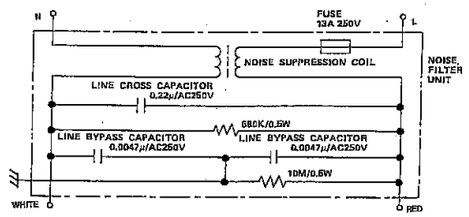
PROCEDURE LETTER	COMPONENT TEST

M **NOISE FILTER UNIT TEST**

Disconnect the oven from the power supply. Connect ohmmeter leads to connector N and L on the noise filter unite, connector N and white terminal, or connector L and red terminal. And then measure the each resistance.



R-6R50



R-6G50/6G52/6R70

MEASURING POINTS	INDICATION OF OHMMETER
Between connector N and L	R-6R50: Approximately 1.5M Ω R-6G50/6G52/6R70: Approximately 680k Ω
Between connector N and terminal WHITE	Short
Between connector L and terminal RED	Short

If the ohmmeter does not indicate above resistance, replace the noise filter unit. In case the ohmmeter indicates open circuit when testing between connector L and terminal RED, check the fuse on the noise filter unit. If the fuse blows, replace it.

P **TOUCH CONTROL PANEL ASSEMBLY TEST**

The touch control panel consists of circuits including semiconductors such as LSI, ICs, etc. Therefore, unlike conventional microwave ovens, proper maintenance cannot be performed with only a voltmeter and ohmmeter. In this service manual, the touch control panel assembly is divided into two units, Control Unit and Key Unit , trouble shooting by unit replacement is described according to the symptoms indicated.

1. Key Unit.

The following symptoms indicate a defective key unit. Replace the key unit.

a) When touching the pads, a certain pad produces no signal at all.
b) When touching a number pad, two figures or more are displayed.
c) When touching the pads, sometimes a pad produces no signal.

2. Control Unit

The following symptoms indicate a defective control unit. Replace the control unit.

2-1 In connection with pads.

a) When touching the pads, a certain group of pads do not produce a signal.
b) When touching the pads, no pads produce a signal.

2-2 In connection with indicators

a) At a certain digit, all or some segments do not light up.
b) At a certain digit, brightness is low.
c) Only one indicator does not light up.
d) The corresponding segments of all digits do not light up; or they continue to light up.
e) Wrong figure appears.
f) A certain group of indicators do not light up.
g) The figure of all digits ficker.

2-3 Other possible troubles caused by defective control unit.

a) Buzzer does not sound or continues to sound.
b) Clock does not operate properly.
c) Cooking is not possible.
d) Proper temperature measurement is not obtained.

(RD82S02U)

PROCEDURE LETTER	COMPONENT TEST

Q **RELAY TEST**

Remove the outer case and check voltage between Pin Nos. 5(7) and 7(9) of the 7(9)-pin connector A on the control unit with an A.C. voltmeter.
The meter should indicate 220 volts, if not check oven circuit.

Shut-off,Cook and Heater Relay Test

These relays are operated by D.C. voltage.
Check voltage at the relay coil with a D.C. voltmeter during the microwave cooking or grill cooking operation.

DC. voltage indicated .....Defective relay.
DC. voltage not indicated .....Check diode which is connected to the relay coil. If diode is good, control unit is defective.

RELAY SYMBOL	OPERATIONAL VOLTAGE	CONNECTED COMPONENTS
RY1	Approx. 12 V.D.C.	Oven lamp and Turntable motor
RY2 (COOK)	Approx. 12 V.D.C.	Power transformer
RY3 (HEATER)	Approx. 12 V.D.C.	Heating element
RY4	Approx. 12 V.D.C.	Cooling fan motor
RY5	Approx. 12 V.D.C.	Rotisserie motor
SURGE RELAY	Approx. 12 V.D.C.	Surge resistor

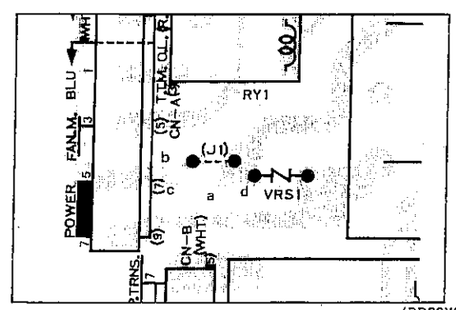
R **PROCEDURES TO BE TAKEN WHEN THE FOIL PATTERN ON THE PRINTED WIRING BOARD(PWB) IS OPEN.**

To protect the electronic circuits, this model is provided with a fine foil pattern added to the primary on the PWB, this foil pattern serves as a substitute coil. If the foil pattern is open, follow the troubleshooting guide given below for repair.

Problem: POWER ON, indicator does not light up.

STEPS	OCCURANCE	CAUSE OR CORRECTION
1	The rated voltage is not applied to POWER terminal of CPU connector (CN-A)	Check supply voltage and oven power cord.
2	The rated voltage is applied to primary side of power transformer.	Power transformer or secondary circuit defective. Check and repair.
3	Only pattern at "a" is broken.	*Insert jumper wire 1 and solder.
4	Pattern at "a" and "b" are broken.	*Insert the coil RCILF2003YAZZ between "c" and "d".

NOTE:* At the time of these repairs, make visual inspection of the varistor for burning damage and examine the transformer with tester for the presence of layer short-circuit (check primary coil resistance).
If any abnormal condition is detected, replace the defective parts.



(RD82X04U)

TOUCH CONTROL PANEL ASSEMBLY

OUTLINE OF TOUCH CONTROL PANEL (R-6R50/R-6R70)

The touch control section consists of the following units as shown in the touch control panel circuit.

(1) Key unit
(2) Control unit

The principal functions of these units and signal communicated among them are explained below.

Key Unit

The key unit is composed of a matrix, signals generated in the LSI are sent to the key unit through P33—P37. When a key pad is touched, a signal is completed through the key unit and passed back to the LSI through R0 — R3 to perform the function that was requested.

Control Unit

Control unit consists of LSI (IZA153DR), power source circuit, synchronizing signal circuit, ACL circuit, buzzer circuit and indicator circuit.

1) LSI
This LSI controls the key strobe signal, relay driving signal for oven function and indicator signal.

2) Power Source Circuit
This circuit generates voltages [VC: —5V, VF1: —23V, VF2: —26V, VA: —15V and Vp: —34V] necessary in the control unit.

3) Synchronizing Signal Circuit
The power source synchronizing signal is available in order to compose a basic standard time in the clock circuit. It accompanies a very small error because it works on commercial frequency.

4) ACL Circuit
A circuit to generate signals resetting the LSI to the initial state when power is supplied.

5) Buzzer Circuit
The buzzer is responsive to signals from the LSI to emit noticing sounds (key touch sound and completion sound).

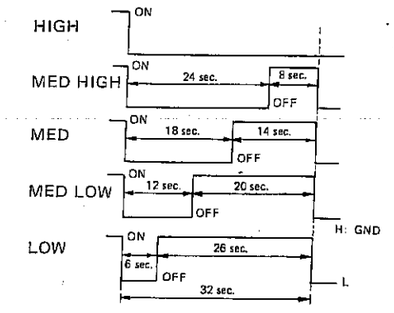
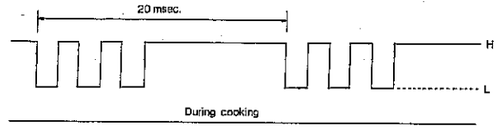
6) Door Switch
A switch to "tell" the LSI if the door is open or closed.

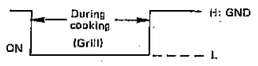
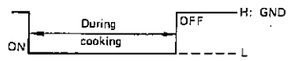
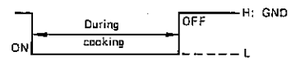
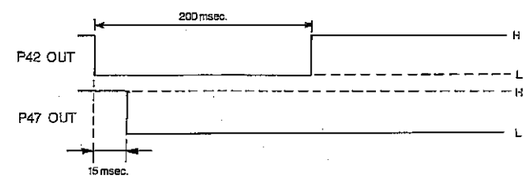
7) Relay Circuit
To drive the magnetron, grill heating element, cooling fan motor, rotisserie motor and light the oven lamp.

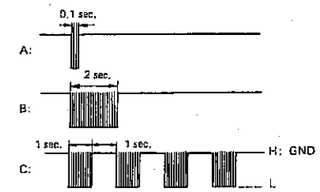
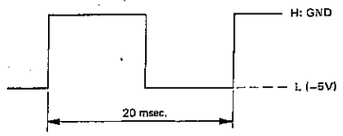
8) Indicator Circuit
Indicator element is a Fluorescent Display.
Basically, a Fluorescent Display is triode having a cathode, a grid and an anode. Usually, the cathode of a Fluorescent Display is directly heated and the filament serves as cathode. The Fluorescent Display 6-digits, 15-segments

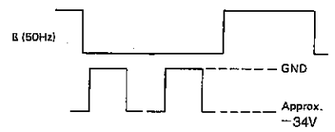
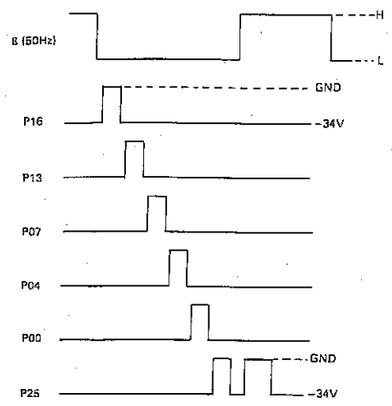
DESCRIPTION OF LSI (R-6R50/R-6R70)

LSI (IZA153DR)
The I/O signal of the LSI (IZA153DR) is detailed in the following table.

Pin. No.	Signal	I/O	Description
1	VREF	IN	**Reference voltage input terminal.** A reference voltage applied to the A/D converter in the LSI. Connected to GND. (0V)
2	IN7	IN	**Terminal to change functions according to the model.** Signal in accordance with the model in operation is applied to set up its function.
3	IN6		
4	IN5	IN	**Input signal which communicates the door open/close information to LSI.** Door closed; "H" level signal (0V) Door opened; "L" level signal (—5V)
5	IN4	IN	Terminal not used. Connected to GND.
6	IN3		
7	IN2		
8	IN1		
9	IN0	IN	**Terminal to change functions according to the model.** Signal in accordance with the model in operation is applied to set up its function.
10	P47	OUT	**Magnetron high-voltage circuit driving signal.** To turn on and off the cook relay (RY2). In High operation, the signals holds "L" level during microwave cooking and "H" level while not cooking. In other cooking modes (MED HIGH, MED, MED LOW, LOW) the signal turns to "H" level and "L" level in repetition according to the power level. 
11	P46	OUT	**Oven lamp driving signal (Square waveform: 50Hz).** To turn on and off shut-off relay (RY1). The square waveform voltage is delivered to the RY1 driving circuit and relays (RY2, RY3 and surge) control circuit. 

Pin No.	Signal	I/O	Description
12	P45	OUT	**Grill heating element driving signal.** To turn on and off the grill heater relay (RY3). "L" level during GRILL; "H" level otherwise. 
13	P44	OUT	**Cooling fan motor driving signal.** To turn on and off shut-off relay (RY4). "L" level during both microwave and grill "H" level otherwise. *GRILLIKG; The cooling fan motor relay is designed to turn off 1 min. later than the grill relay. 
14	P43	OUT	**ROTISSERIE MOTOR driving signal.** To turn on and off shut-off relay (RY5). "L" level during both microwave and grill; "H" level otherwise. 
15	P42	OUT	**Surge limiting relay driving signal.** The surge limiting relay is designed to turn on 15 msec. earlier than the cook relay (RY2). 
16	P41	OUT	Terminal not used.
17	P40		
18	P37	OUT	**Key strobe signal.** Signal applied to touch-key section. Apulse signal is input to R0 — R3 terminal while one of G-9 line keys on key matrix is touched.
19	P36	OUT	**Key strobe signal.** Signal applied to touch-key section. A pulse signal is input to R0 —R3 terminal while one of G-8 line keys on key matrix is touched.
20	P35	OUT	**Key strobe signal.** Signal applied to touch-key section. A pulse signal is input to R0 —R3 terminal while one of G-7 line keys on key matrix is touched.
21	P34	OUT	**Key strobe signal.** Signal applied to touch-key section. A pulse signal is input to R0 —R3 terminal while one of G-6 line keys on key matrix is touched.

Pin No.	Signal	I/O	Description
22	P33	OUT	**Key strobe signal.** Signal applied to touch-key section. A pulse signal is input to R0 —R3 terminal while one of G-5 line keys on key matrix is touched.
23	P32	OUT	**Signal to sound buzzer.** A : Key touch sound. B : Completion sound. C : When a stage finishes for Compu Cook. 
24	P31	IN	**Signal synchronized with commercial power source frequency.** This is the basic timing for all time processing of LSI. 
25	P30	OUT	Terminal not used.
26	CNVSS	IN	Connected to Vc.
27	RESET	IN	**Auto-clear terminal.** Signal is input to reset the LSI to the initial state when power is supplied. Temporarily set to "L" level the moment power is supplied, at this time the LSI is reset. Thereafter set at "H" level.
28	XIN	IN	**Internal clock oscillation frequency setting input.** The internal clock frequency is set by inserting the ceramic filter oscillation circuit with respect to XOUT terminal.
29	XOUT	OUT	**Internal clock oscillation frequency control output.** Output to control osillation input of XIN.
30	XCIN	IN	Terminal not used.
31	XCOUT	OUT	
32	Vss	IN	**Power source voltage: —5V.** VC voltage of power source circuit input.
33	ϕ	OUT	Terminal not used.
34	R3	IN	**Signal coming from touch-key.** When either one of G-1 line keys on key matrix is touched, a corresponding signal out of P33 — P37 will be input into R3. When no key is touched, the signal is held at "L" level.

Pin No.	Signal	I/O	Description
35	R2	IN	**Signal similar to R3.** When either one of G-2 line keys on key matrix is touched, a corresponding signal will be input into R2.
36	R1	IN	**Signal similar to R3.** When either one of G-3 line keys on key matrix is touched, a corresponding signal will be input into R1.
37	R0	IN	**Signal similar to R3.** When either one of G-4 line keys on key matrix is touched, a corresponding signal will be input into R0.
38	VP	IN	**Anode (segment) of Fluorescent Display light-up voltage: −34V.** VP voltage of power source circuit input.
39	P17	OUT	**Segment data signals.** The relation between signals and indicators are as follows: P17 ..... LB3 P03 ..... g P15 ..... LB2 P02 ..... f P14 ..... LB1 P01 ..... e P12 ..... UB P27 ..... d P11 ..... K P26 ..... c P10 ..... J P24 ..... b P06 ..... i P23 ..... a P05 ..... h 
40	P16	OUT	**Digit selection signal.** The relation between digit signal and digit are as follows: Digit signal digit Digit signal digit P16 ..... 1st P04 ..... 4th P13 ..... 2nd P00 ..... 5th P07 ..... 3rd P25 ..... 6th Normally, one pulse is output in every ß period, and input to the grid of the Fluorescent Display. 

Pin No.	Signal	I/O	Description
41	P15	OUT	**Segment data signal.** Signal similar to P17.
42	P14		
43	P13	OUT	**Digit selection signal.** Signal similar to P16.
44	P12	OUT	**Segment data signal.** Signal similar to P17.
45	P11		
46	P10	OUT	**Segment data signal.** Signal similar to P17.
47	P07	OUT	**Digit selection signal.** Signal similar to P16.
48	P06	OUT	**Segment data signal.** Signal similar to P17.
49	P05		
50	P04	OUT	**Digit selection signal.** Signal similar P16.
51	P03	OUT	**Segment data signal.** Signal similar to P17.
52	P02		
53	P01		
54	P00	OUT	**Digit selection signal.** Signal similar P16.
55	P27	OUT	**Segment data signal.** Signal similar to P17.
56	P26		
57	P25	OUT	**Digit selection signal.** Signal similar to P16.
58	P24	OUT	**Segment data signal.** Signal similar to P17.
59	P23		
60	P22	OUT	Terminal not used.
61	P21		
62	P20	IN	**Terminal for manufacture test.**
63	AVCC	IN	Connected to GND.
64	VSS	IN	Connected to GND.

TOUCH CONTROL PANEL ASSEMBLY

OUTLINE OF TOUCH CONTROL PANEL (R-6G50/R-6G52)

The touch control section consists of the following units as shown in the touch control panel circuit.

(1) Key unit
(2) Control unit

The principal functions of these units and signal communicated among them are explained below.

Key Unit

The key unit is composed of a matrix, signals generated in the LSI are sent to the key unit through P33 — P36. When a key pad is touched, a signal is completed through the key unit and passed back to the LSI through R0 — R3 to perform the function that was requested.

Control Unit

Control unit consists of LSI (IZA153DR), power source circuit, synchronizing signal circuit, ACL circuit, buzzer circuit and indicator circuit.

1) LSI
This LSI controls the key strobe signal, relay driving signal for oven function and indicator signal.

2) Power Source Circuit
This circuit generates voltages [VC: −5V, VF1: −23V, VF2: −26V, VA: −15V and Vp: −34V] necessary in the control unit.

3) Synchronizing Signal Circuit
The power source synchronizing signal is available in order to compose a basic standard time in the clock circuit.
It accompanies a very small error because it works on commercial frequency.

4) ACL Circuit
A circuit to generate signals resetting the LSI to the initial state when power is supplied.

5) Buzzer Circuit
The buzzer is responsive to signals from the LSI to emit noticing sounds (key touch sound and completion sound).

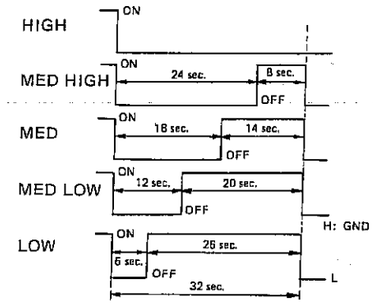
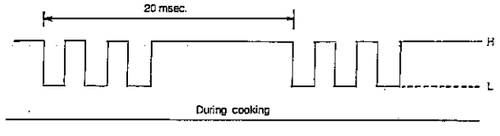
6) Door Switch
A switch to "tell" the LSI if the door is open or closed.

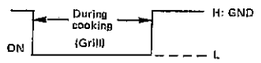
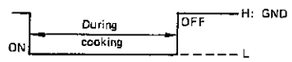
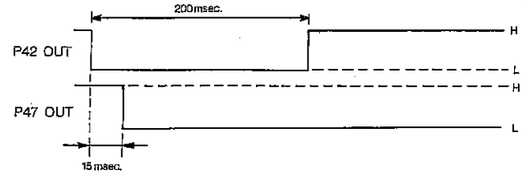
7) Relay Circuit
To drive the magnetron, grill heating element, cooling fan motor, and light the oven lamp.

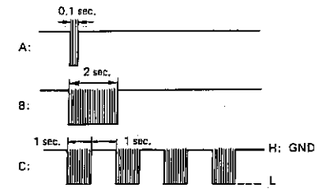
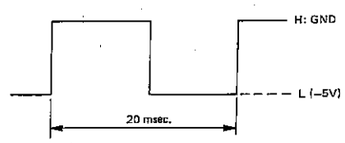
8) Indicator Circuit
Indicator element is a Fluorescent Display.
Basically, a Fluorescent Display is triode having a cathode, a grid and an anode. Usually, the cathode of a Fluorescent Display is directly heated and the filament serves as cathode. The Fluorescent Display 6-digits, 15-segments

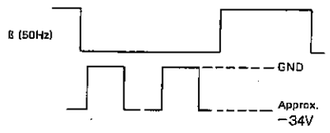
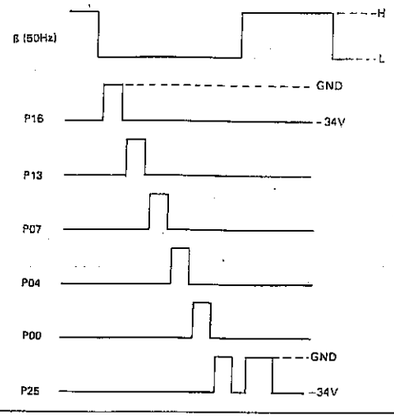
DESCRIPTION OF LSI (R-6G50/R-6G52)

LSI (IZA153DR)
The I/O signal of the LSI (IZA153DR) is detailed in the following table.

Pin. No.	Signal	I/O	Description
1	VREF	IN	**Reference voltage input terminal.** A reference voltage applied to the A/D converter in the LSI. Connected to GND. (0V)
2	IN7	IN	**Terminal to change functions according to the model.** Signal in accordance with the model in operation is applied to set up its function.
3	IN6		
4	IN5	IN	**Input signal which communicates the door open/close information to LSI.** Door closed; "H" level signal (0V) Door opened; "L" level signal (−5V)
5	IN4	IN	Terminal not used. Connected to GND.
6	IN3		
7	IN2		
8	IN1		
9	IN0	IN	**Terminal to change functions according to the model.** Signal in accordance with the model in operation is applied to set up its function.
10	P47	OUT	**Magnetron high-voltage circuit driving signal.** To turn on and off the cook relay (RY2). In High operation, the signals holds "L" level during microwave cooking and "H" level while not cooking. In other cooking modes (MED HIGH, MED, MED LOW, LOW) the signal turns to "H" level and "L" level in repetition according to the power level. 
11	P46	OUT	**Oven lamp driving signal (Square waveform: 50Hz).** To turn on and off shut-off relay (RY1). The square waveform voltage is delivered to the RY1 driving circuit and relays (RY2, RY3 and surge) control circuit. 

Pin No.	Signal	I/O	Description
12	P45	OUT	**Grill heating element driving signal.** To turn on and off the grill heater relay (RY3). "L" level during GRILL; "H" level otherwise. 
13	P44	OUT	**Cooling fan motor driving signal.** To turn on and off shut-off relay (RY4). "L" level during both microwave and grill "H" level otherwise. * GRILLIKG; The cooling fan motor relay is designed to turn off 1 min. later than the grill relay. 
14	P43	OUT	Terminal not used.
15	P42	OUT	**Surge limiting relay driving signal.** The surge limiting relay is designed to turn on 15 msec. earlier than the cook relay (RY2). 
16	P41	OUT	Terminal not used.
17	P40		
18	P37	OUT	Terminal not used.
19	P36	OUT	**Key strobe signal.** Signal applied to touch-key section. A pulse signal is input to R0 —R3 terminal while one of G-8 line keys on key matrix is touched.
20	P35	OUT	**Key strobe signal.** Signal applied to touch-key section. A pulse signal is input to R0 —R3 terminal while one of G-7 line keys on key matrix is touched.
21	P34	OUT	**Key strobe signal.** Signal applied to touch-key section. A pulse signal is input to R0 —R3 terminal while one of G-6 line keys on key matrix is touched.

Pin No.	Signal	I/O	Description
22	P33	OUT	**Key strobe signal.** Signal applied to touch-key section. A pulse signal is input to R0 —R3 terminal while one of G-5 line keys on key matrix is touched.
23	P32	OUT	**Signal to sound buzzer.** A : Key touch sound. B : Completion sound. C : When a stage finishes for Compu Cook. 
24	P31	IN	**Signal synchronized with commercial power source frequency.** This is the basic timing for all time processing of LSI. 
25	P30	OUT	Terminal not used.
26	CNVSS	IN	Connected to Vc.
27	RESET	IN	**Auto-clear terminal.** Signal is input to reset the LSI to the initial state when power is supplied. Temporarily set to "L" level the moment power is supplied, at this time the LSI is reset. Thereafter set at "H" level.
28	XIN	IN	**Internal clock oscillation frequency setting input.** The internal clock frequency is set by inserting the ceramic filter oscillation circuit with respect to XOUT terminal.
29	XOUT	OUT	**Internal clock oscillation frequency control output.** Output to control osillation input of XIN.
30	XCIN	IN	Terminal not used.
31	XCOUT	OUT	
32	Vss	IN	**Power source voltage: —5V.** VC voltage of power source circuit input.
33	ϕ	OUT	Terminal not used.
34	R3	IN	**Signal coming from touch-key.** When either one of G-1 line keys on key matrix is touched, a corresponding signal out of P33 — P36 will be input into R3. When no key is touched, the signal is held at "L" level.

Pin No.	Signal	I/O	Description
35	R2	IN	**Signal similar to R3.** When either one of G-2 line keys on key matrix is touched, a corresponding signal will be input into R2.
36	R1	IN	**Signal similar to R3.** When either one of G-3 line keys on key matrix is touched, a corresponding signal will be input into R1.
37	R0	IN	**Signal similar to R3.** When either one of G-4 line keys on key matrix is touched, a corresponding signal will be input into R0.
38	VP	IN	**Anode (segment) of Fluorescent Display light-up voltage: −34V.** VP voltage of power source circuit input.
39	P17	OUT	**Segment data signals.** The relation between signals and indicators are as follows: Signal ..... Segment — Signal ..... Segment P17 ..... LB3 — P03 ..... g P15 ..... LB2 — P02 ..... f P14 ..... LB1 — P01 ..... e P12 ..... UB — P27 ..... d P11 ..... K — P26 ..... c P10 ..... J — P24 ..... b P06 ..... i — P23 ..... a P05 ..... h 
40	P16	OUT	**Digit selection signal.** The relation between digit signal and digit are as follows: Digit signal ..... digit — Digit signal ..... digit P16 ..... 1st — P04 ..... 4th P13 ..... 2nd — P00 ..... 5th P07 ..... 3rd — P25 ..... 6th Normally, one pulse is output in every ß period, and input to the grid of the Fluorescent Display. 

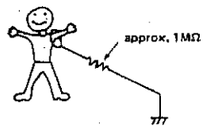
Pin No.	Signal	I/O	Description
41	P15	OUT	**Segment data signal.** Signal similar to P17.
42	P14		
43	P13	OUT	**Digit selection signal.** Signal similar to P16.
44	P12	OUT	**Segment data signal.** Signal similar to P17.
45	P11		
46	P10	OUT	**Segment data signal.** Signal similar to P17.
47	P07	OUT	**Digit selection signal.** Signal similar to P16.
48	P06	OUT	**Segment data signal.** Signal similar to P17.
49	P05		
50	P04	OUT	**Digit selection signal.** Signal similar P16.
51	P03	OUT	**Segment data signal.** Signal similar to P17.
52	P02		
53	P01		
54	P00	OUT	**Digit selection signal.** Signal similar P16.
55	P27	OUT	**Segment data signal.** Signal similar to P17.
56	P26		
57	P25	OUT	**Digit selection signal.** Signal similar to P16.
58	P24	OUT	**Segment data signal.** Signal similar to P17.
59	P23		
60	P22	OUT	Terminal not used.
61	P21		
62	P20	IN	**Terminal for manufacture test.**
63	AVCC	IN	Connected to GND.
64	VSS	IN	Connected to GND.

SERVICING

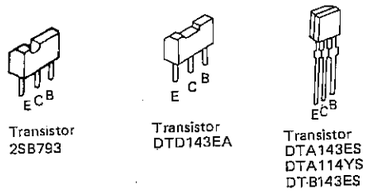
. Precautions for Handling Electronic Components

This unit uses PMOS LSI in the integral part of the circuits. When handling these parts, the following precautions should be strictly followed.
PMOS LSI have extremely high impedance at its input and output terminals. For this reason, it is easily influenced by the surrounding high voltage power source, static electricity charge in clothes, etc,and sometimes it is not fully protected by the built-in protection circuit.
In order to protect PMOS LSI.

1) When storing and transporting, thoroughly wrap them in aluminum foil.
   Also wrap all PW boards containing them in aluminium foil.
2) When soldering, ground the technician as shown in the figure and use grounded soldering iron and work table.



Shapes of Electronic Components



Servicing of Touch Control Panel

We describe the procedures to permit servicing of the touch control panel of the microwave oven and the precautions you must take when doing so.
To perform the servicing, power to the touch control panel is available either from the power line of the oven itself or from an external power source.

(1) Servicing the touch control panel with power supply of the oven:

CAUTION:
THE HIGH VOLTAGE TRANSFORMER OF THE MICROWAVE OVEN IS STILL LIVE DURING SERVICING PRESENT A HAZARD.

Therefore, when checking the performance of the touch control panel,put the outer cabinet on the oven to avoid touching the high voltage transformer, or unplug the primary terminal (connector) of the high voltage transformer to turn it off; the end of such connector shall be insulated with an insulating tape. After servicing, be sure to replace the leads to their original locations.

A. On some models, the power supply cord between the touch control panel and the oven itself is so short that the two can't be separated. For those models, check and repair all the controls (sensor-related ones included) of the touch control panel while keeping it connected to the oven.
B. On some models, the power supply cord between the touch control panel and the oven proper is long enough that they may be separated from each other. For those models, therefore, it is possible to check and repair the controls of the touch control panel while keeping it apart from the oven proper;in this case you must short both ends of the stop switch (on PWB) of the touch control panel with a jumper, which brings about an operational state that is equivalent to the oven door being closed.
   As for the sensor-related controls of the touch control panel, checking them is possible if dummy resistor(s) with resistance equal to that of the controls are used.

(2) Servicing the touch control panel with power supply from an external power source:

Disconnect the touch control panel completely from the oven proper,and short both ends of the stop switch (on PWB) of the touch control panel,which brings about an operational state that is equivalent to the oven door being closed. Connect an external power source to the power input terminal of the touch control panel, then it is possible to check and repair the controls of the touch control panel; it is also possible to check the sensor-related controls of the touch control panel by using the dummy resistor(s).

4. Servicing Tools

Tools required to service the touch control panel assembly.
1) Soldering iron: 30W
(It is recommended to use a soldering iron with a grounding terminal.)
2) Oscilloscope: Single beam, frequency range: DC - 10MHz type or more advanced model.
3) Others: Hand tools

5. Other Precautions

1) Before turning on the power source of the control unit, remove the aluminum foil applied for preventing static electricity.
2) Connect the connector of the key unit to the control unit being sure that the lead wires are not twisted.
3) After aluminum foil is removed, be careful that abnormal voltage due to static electricity etc. is not applied to the input or output terminals.
4) Attach connectors, electrolytic capacitors, etc. to PWB, making sure that all connections are tight.
5) Be sure to use specified components where high precision is required.

(RD94ZE2U)

COMPONENT REPLACEMENT AND ADJUSTMENT PROCEDURE

WARNING: To avoid possible exposure to microwave energy;

A. Before operating the oven
   1. Make sure that unlatching the door slowly is accompanied by a click indicating actuation of the monitor switch and latch switches.
   2. Check visually the door seal for arcing and damage.
B. Do not operate the oven before any of the following conditions are repaired;
   1. Door does not close firmly against the front of appliance.
   2. There is a broken door hinge or support.
   3. The door is bent or warped.
   4. There is any defective parts in the interlock, oven door or microwave generating and transmission assembly.
   5. There is any other visible damage to the oven.
C. Do not operate the oven
   1. Without the RF gasket.
   2. If the door is not closed.

CAUTION: DISCONNECT OVEN FROM POWER SUPPLY BEFORE REMOVING OUTER CASE. DISCHARGE HIGH VOLTAGE CAPACITOR BEFORE TOUCHING ANY OVEN COMPONENTS OR WIRING.

(RDA1203U)

ROTTISSERIE MOTOR ASSEMBLY REMOVAL

1. Disconnect the oven from power supply and remove the outer case cabinet.
2. Discharge the high voltage capacitor.
3. Disconnect the wire harness (main) from the rotisserie motor assembly.
4. Remove the two (2) screws holding the rotisserie motor assembly to the oven cavity.
5. Now, the rotisserie motor assembly is free.

Note: Don't remove only the rotisserie motor from the rotisserie motor angle because the special adjustment is needed to install the rotisserie motor in the rotisserie motor angle.

POSITION OF THE WIRE TIES

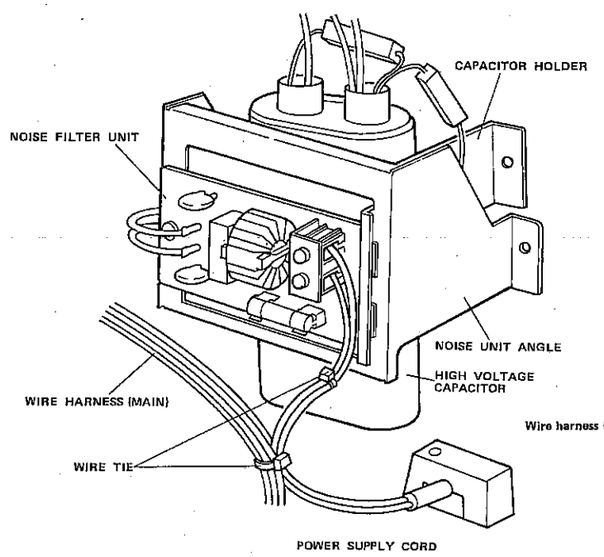


Figure C-1. For Model R-6R50

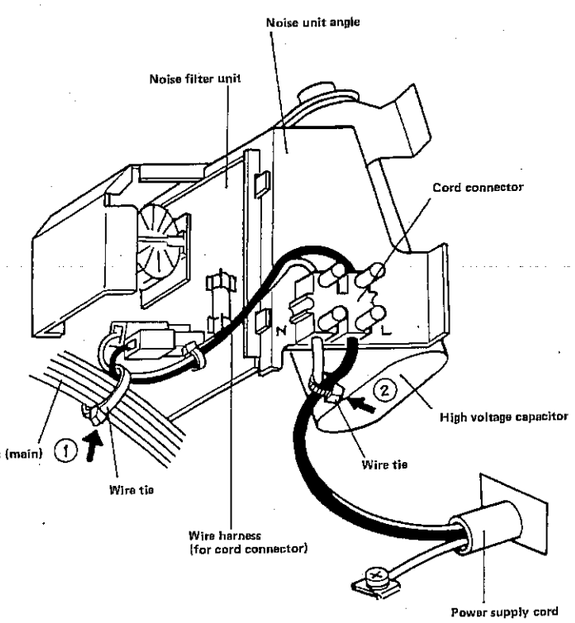


Figure C-2. For Model R-6G50,-6G52, -6R70

1ST LATCH SWITCH, 2ND LATCH SWITCH, STOP SWITCH MONITOR SWITCH AND HEATER SWITCH REMOVAL

1. Disconnect the oven from power supply and remove the outer case cabinet.
2. Discharge the high voltage capacitor.
3. Remove the single (1) screw holding the relay mounting plate to the base plate.
4. Remove the two (2) screws holding the latch hook to the oven.
5. Open the door and pull the latch hook out of the oven flange.
   (Refere to Figure C-3.)

For 1st latch switch;

1) Disconnect the wire leads from the 1st latch switch.
2) Push the retaining tab(holding the left side of the 1st latch switch) leftwards slightly, and then push the 1st latch switch downwards(to the arrow direction), and remove it from the latch hook.

For other switches;

The switches can be removed by doing procedure as same as above.

CAUTION: WHEN REMOVING THE SWITCHES, DON'T BREAK THE TABS OF THE LATCH HOOK.

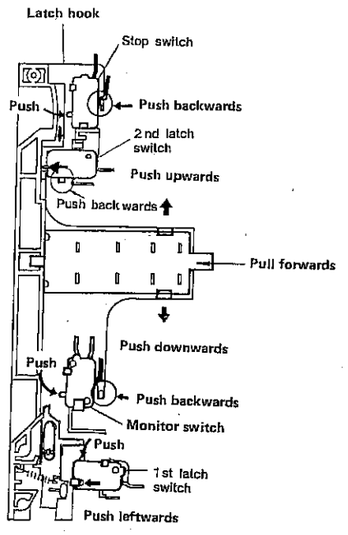


Figure C-3. Switch Removal

1ST LATCH SWITCH, 2ND LATCH, STOP SWITCH, HEATER SWITCH AND MONITOR SWITCH ADJUSTMENT

In case 1st latch switch, 2nd latch, stop switch, heater switch and monitor switch do not operate properly due to a mis-adjustment, the following adjustment should be made.

1. Loosen the two (2) screws holding the latch hook.
2. With the door closed, adjust the latch hook by moving it back and forward, or up and down. In and out play of the door allowed by the latch hook should be less than 0.5 mm.
   The vertical position of the latch hook should be placed where the 1st latch switch and 2nd latch switch have activated with the door closed.
   The horizontal position of the latch hook should be placed where the stop switch, heater switch and monitor switch have activated with the door closed.
3. Secure the screws with washers firmly.
4. Make sure of the 1st latch switch, 2nd latch switch, stop switch, heater switch and monitor switch operation. If those switches have not activated with the door closed, loose two (2) screws holding latch hook and adjust the latch hook position.

After adjustment, make sure of the following:

1. The 1st latch switch and 2nd latch switch interrupt the circuit before the door open, and then the stop switch, heater switch and monitor switch (COM-NO) contacts interrupt the circuit.
2. The monitor switch (COM-NC) contacts close when the door is opened.
3. Re-install outer case and check for microwave leakage around the door with an approved microwave survey meter. (Refer to Microwave Measurement Procedure.)

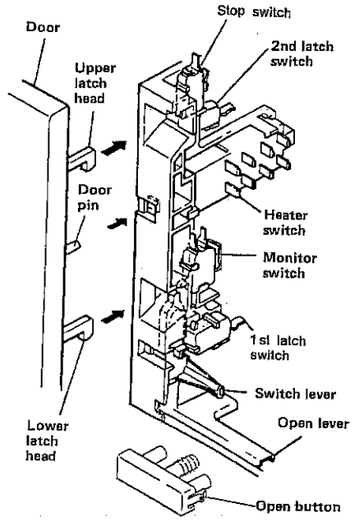


Figure C-4. Latch Switch Adjustments

MICROWAVE MEASUREMENT

After adjustment of door latch switches, monitor switch and door are completed individually or collectively, the following leakage test must be performed with a survey instrument and it must be confirmed that the result meets the requirements of the performance standard for microwave oven.

REQUIREMENT

The safety switch must prevent microwave radiation emission in excess of 5mW/cm2 at any point 5cm or more from external surface of the oven.

PREPARATION FOR TESTING:

Before beginning the actual test for leakage, proceed as follows;

1. Make sure that the test instrument is operating normally as specified in its instruction booklet.
   Important:
   Survey instruments that comply with the requirement for instrumentations as prescribed by the performance standard for microwave ovens must be used for testing.
   Recommended instruments are:
   NARDA 8100
   NARDA 8200
   HOLADAY HI 1500
   SIMPSON 380M
2. Place the oven tray into the oven cavity.
3. Place the load of 275 ±15ml of water initially at 20 ±5 °C in the center of the oven tray. The water container should be a low form of 600 ml beaker with inside diameter of approx. 8.5cm and made of an electrically non-conductive material such as glass or plastic.
   The placing of this standard load in the oven is important not only to protect the oven, but also to insure that any leakage is measured accurately.
4. Close the door and turn the oven ON with the timer set for several minutes. If the water begins to boil before the survey is completed, replace it with 275ml of the cool water.
5. Move the probe slowly (not faster that 2.5cm/sec.) along the gap.
6. The microwave radiation emission should be measured at any point of 5cm or more from the external surface of the oven.

(RDB1103U)

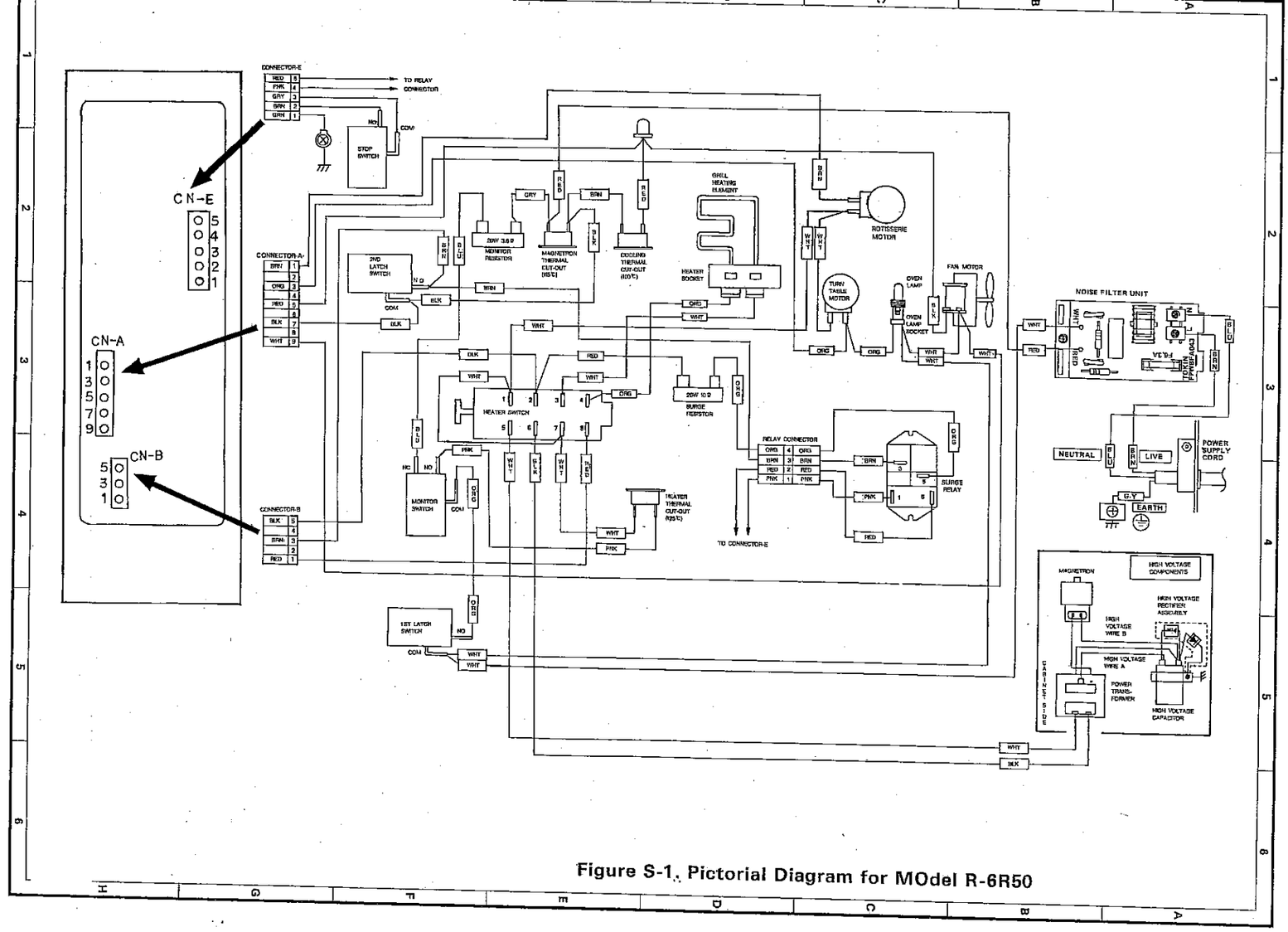


Figure S-1. Pictorial Diagram for MOdel R-6R50

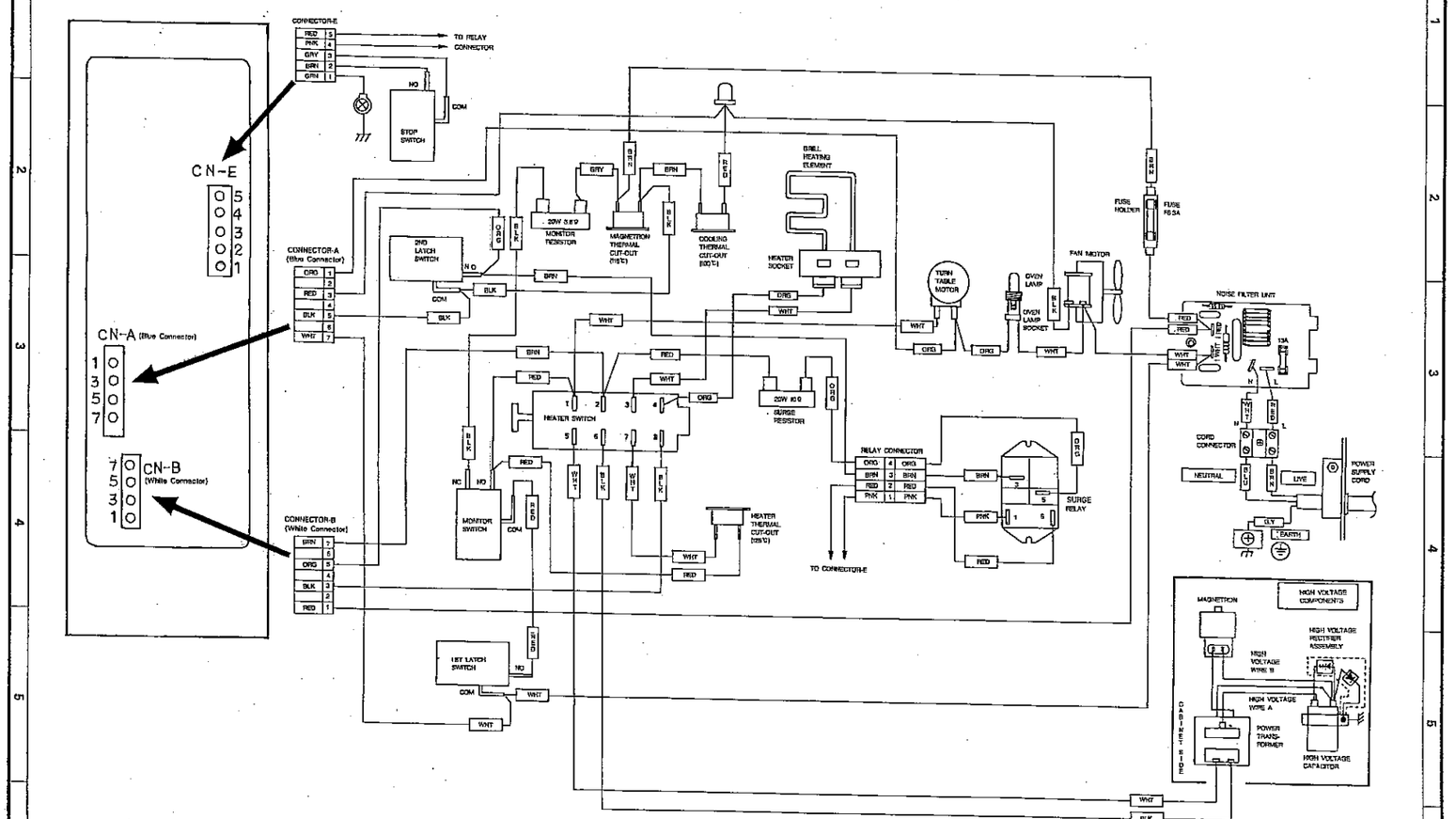


Figure S-2. Pictorial Diagram for Model R-6G50,-6G52

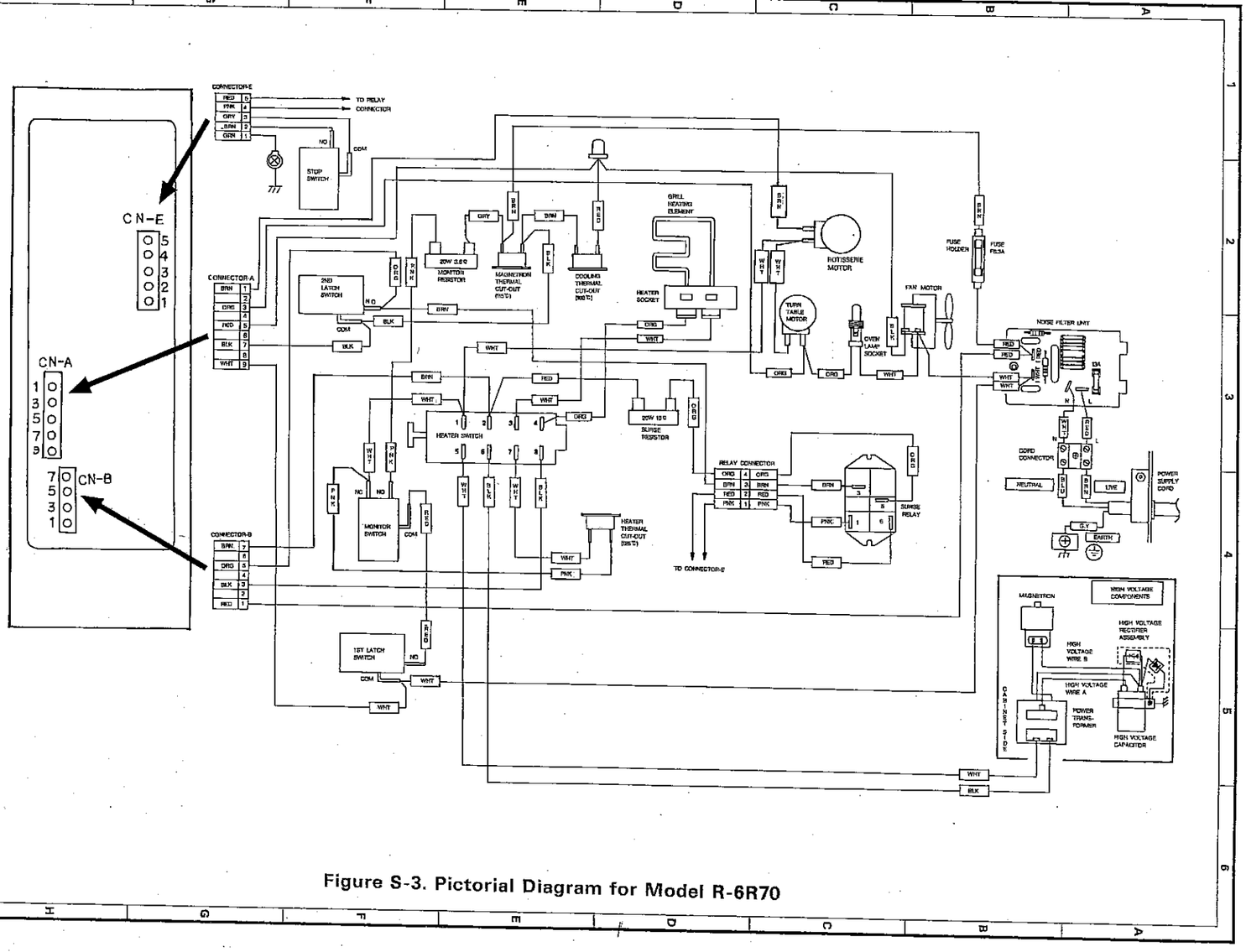


Figure S-3. Pictorial Diagram for Model R-6R70

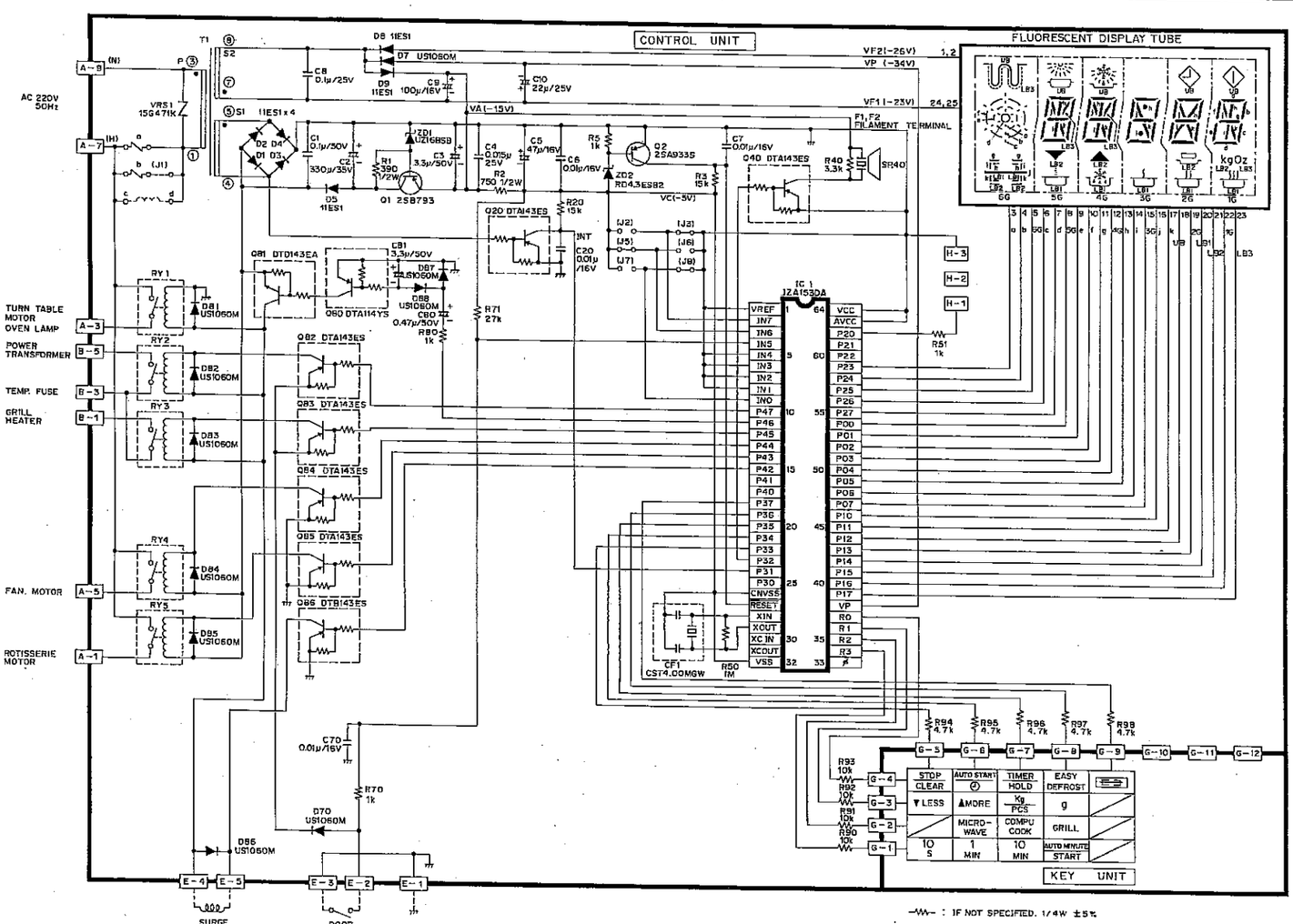


Figure S-4. Control Panel Circuit for Model R-6R50

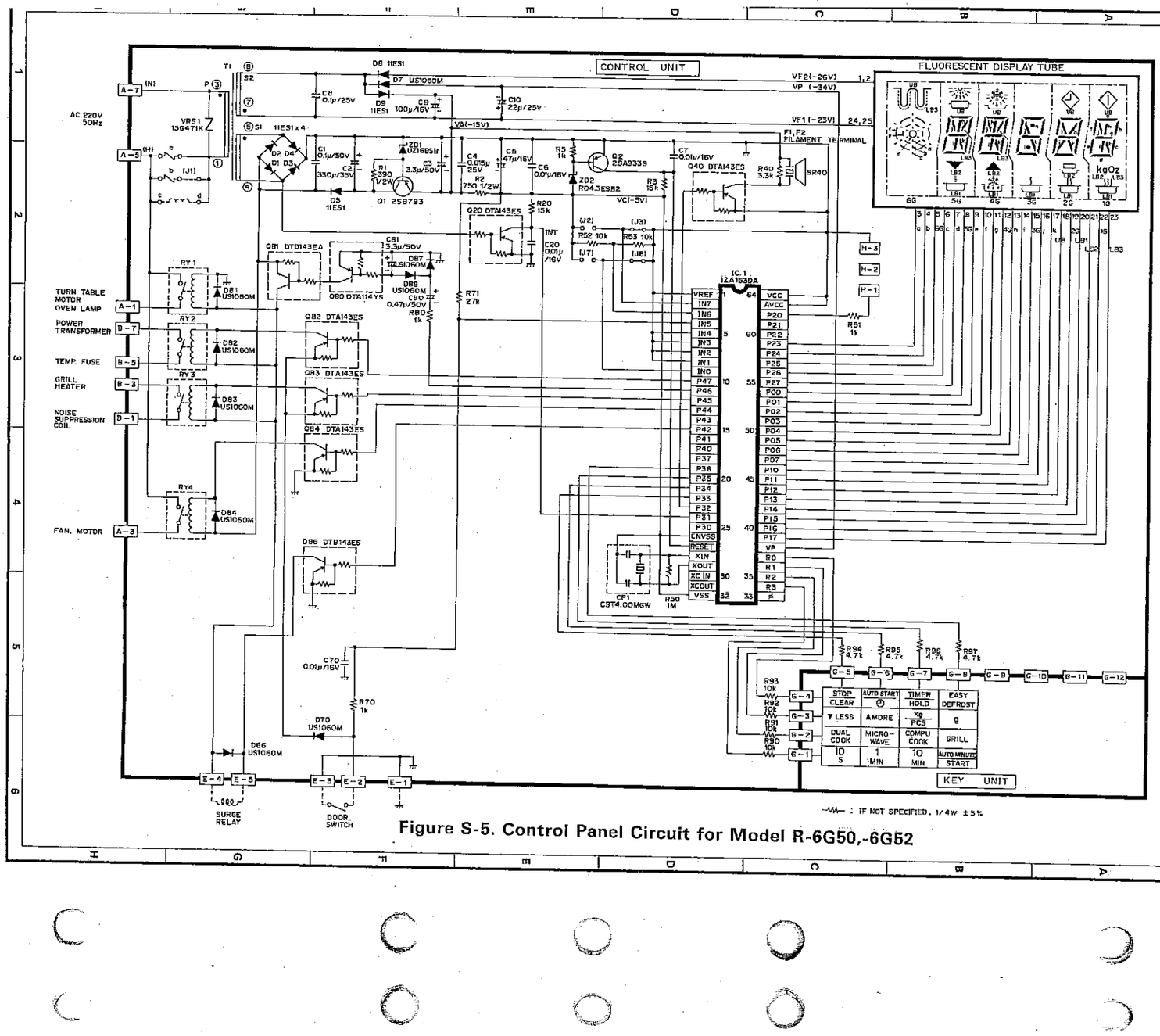


Figure S-5. Control Panel Circuit for Model R-6G50,-6G52

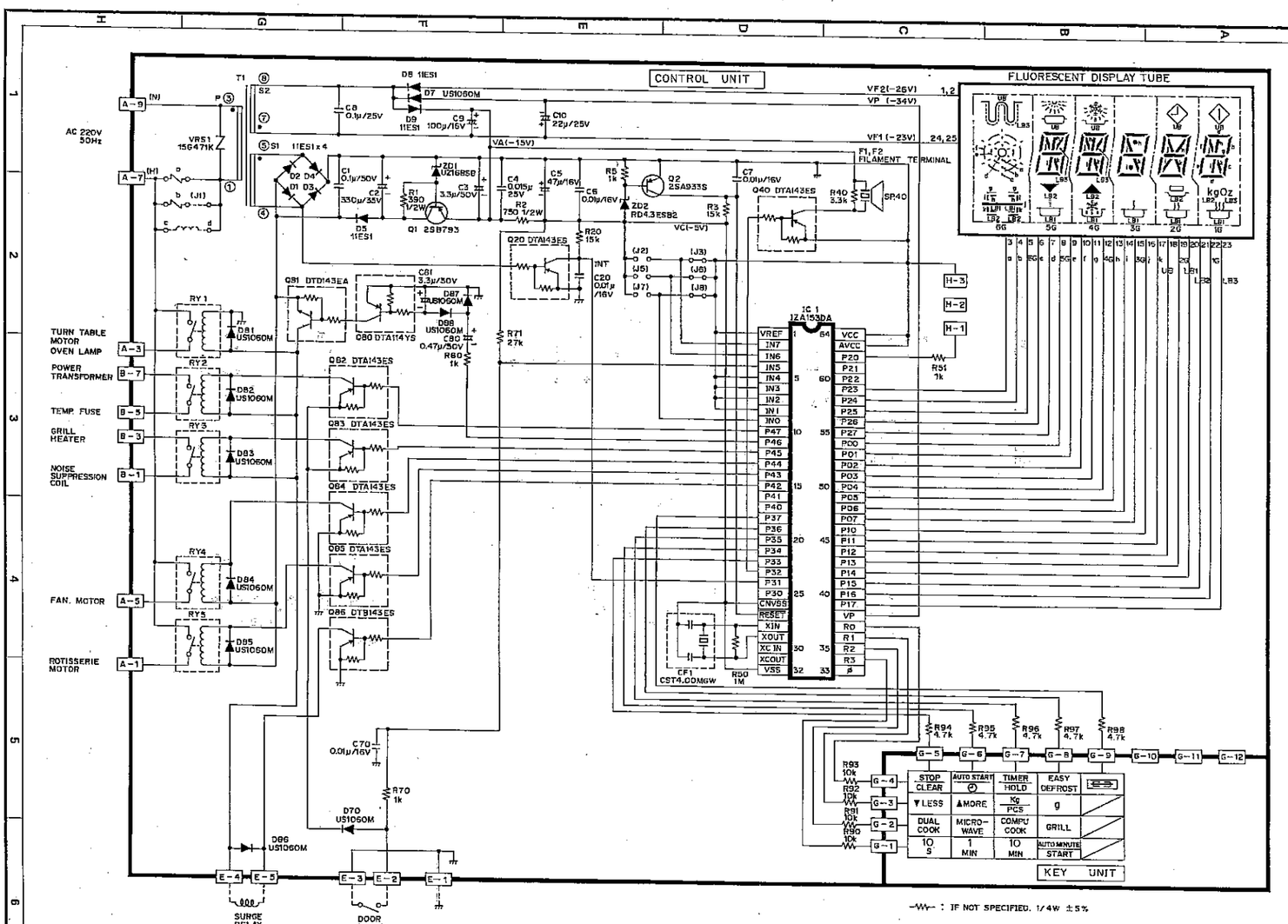


Figure S-6. Control Panel Circuit for Model R-6R70

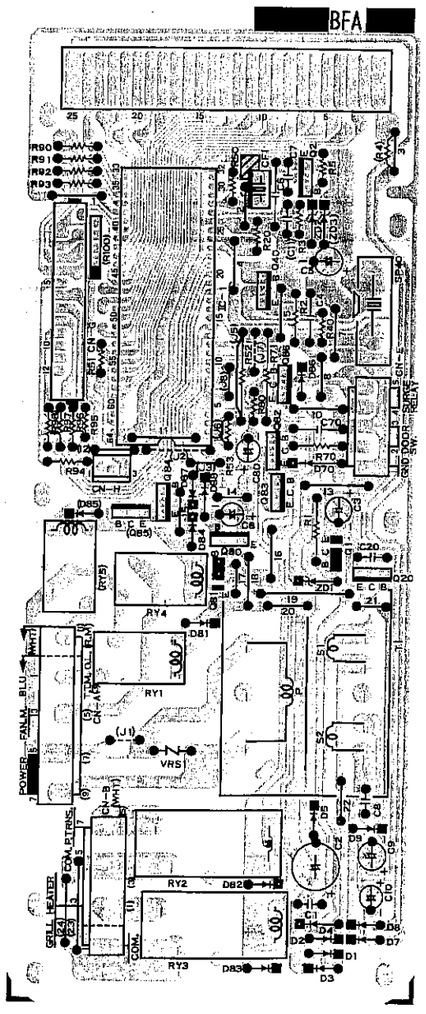


Figure S-7. Printed Wiring Board

PARTS LIST

Note : The parts marked "*" are used in voltage more than 250V.
"§"MARK: SPARE PARTS-DELIVERY SECTION

	REF. NO.	PART NO.	§	DESCRIPTION	Q'TY	CODE
				ELECTRIC PARTS		
	1- 1	FMOTDA019WRE0	U	Rotisserie motor assembly : R-6R50/R-6R70	1	AY
	1- 2	FPWBFA152WRE0	J	Noise filter unit : R-6G50/R-6G52/R-6R70	1	AT
		FPWBFA043WRK0	J	Noise filter unit : R-6R50	1	AT
	1- 3	QTANNA001WRE0	J	Cord connector : R-6G50/R-6G52/R-6R70	1	AF
*	1- 4	FH-DZA005WRE0	J	High voltage rectifier assembly	1	AQ
*	1- 5	RC-QZA045WRE0	J	High voltage capacitor	1	AX
*	1- 6	RV-MZA064WRE0	U	Magnetron	1	BH
	1- 7	FRLY-A003WRK0	U	Surge relay	1	AU
	1- 8	QFSHDA002WRE0	J	Fuse holder : R-6G50/R-6G52/R-6R70	1	AE
	1- 9	RHET-A040WRE0	U	Grill heating element	1	AW
	1-10	QSW-MA040WRE0	J	1st latch and 2nd latch switch(V-16G-3C5)	2	AG
	1-11	QSW-MA042WRE0	J	Monitor switch(V-16G-1C5)	1	AG
	1-12	QSW-MA045WRE0	J	Stop switch(V-11-3C5)	1	AG
	1-13	QSW-PA001WRE0	U	Heater switch	1	AR
	1-14	RMOTEA105WRE0	U	Fan motor	1	AW
	1-15	FSOCHA003WRE0	U	Heater socket	1	AP
	1-16	QACCVA010WRE0	U	Power supply cord : R-6G50/R-6G52/R-6R70	1	AQ
		QACCVA011WRE0	U	Power supply cord : R-6R50	1	AP
	1-17	QFS-CA009WRE0	U	Fuse 13A : R-6G50/R-6G52/R-6R70	1	AC
	1-18	QFS-CA011WRE0	U	Fuse F6.3A	1	AB
	1-19	QSOCLA011WRE0	U	Oven lamp socket	1	AE
	1-20	RLMPTA028WRE0	J	Oven lamp	1	AM
	1-21	RMOTDA065WRE0	U	Turntable motor	1	AS
	1-22	RR-WZ0026WRE0	J	Surge resistor 20W 10 Ω	1	AH
	1-23	RR-WZ0027WRE0	J	Monitor resistor 20W 3.6 Ω	1	AH
	1-24	RTHM-A022WRE0	J	Cooling thermal cut-out(100 °C)	1	AH
	1-25	RTHM-A017WRE0	J	Magnetron thermal cut-out(115 °C)	1	AG
	1-26	RTHM-A023WRE0	J	Heater thermal cut-out(125 °C)	1	AG
*	1-27	RTRN-A177WRE0	U	Power transformer	1	BP
				CABINET PARTS		
	2- 1	FFTASA019WRK0	U	Oven lamp access cover : Block color model	1	AM
		FFTASA020WRK0	U	Oven lamp access cover : White color model	1	AM
	2- 1A	PCUSGA165WRP0	U	Cushion	1	AB
	2- 1B	PSLDPA004WRP0	U	Reflection tape	1	AB
	2- 2	GCABUA183WRP0	U	Outer case cabinet : Block color model	1	AY
		GCABUA187WRP0	U	Outer case cabinet : White color model	1	AY
	2- 3	TMAPCA385WRR0	U	Schematic diagram : R-6G50/R-6G52	1	AB
		TMAPCA388WRR0	U	Schematic diagram : R-6R50	1	AB
		TMAPCA393WRR0	U	Schematic diagram : R-6R70	1	AB
	2- 4	LANGQA119WRP0	U	Relay mounting plate	1	AE
	2- 5	GDAI-A101WRP0	U	Base plate	1	AU
	2- 6	GLEGPA013WRE0	J	Foot	6	AB
	2- 7	GCOVHA143WRP0	U	Turntable motor cover	1	AF
	2- 8	LANGQA011WRM0	U	Earth angle	1	AA
	2- 9	PCAPHA004WRE0	U	Cabinet cap : Block color model	2	AA
		PCAPHA005WRE0	U	Cabinet cap : White color model	2	AA
	2-10	PSPAGA001WRE0	U	Vaibration proof cushion	1	AA
				CONTROL PANEL PARTS : R-6G50(B)(W)/R-6G52(B)(W)		
	3- 1	CPWBFA171WRK0	J	Control unit	1	BR
	3- 1A	QCNCMA129DRE0	J	7-pin connector (A)	1	AC
	3- 1B	QCNCMA078DRE0	J	7-pin connector (B)	1	AD
	3- 1C	QCNCMA130DRE0	J	5-pin connector (E)	1	AC
	3- 1D	QCNCWA030DRE0	J	12-pin connector (G)	1	AE
	3- 1E	RV-KXA016DRE0	J	Fluorescent display tube	1	AX
	C1	RC-KZA032DRE0	J	Capacitor 0.1 µF 50V	1	AB
	C2	VCEAB31VW337M	J	Capacitor 330 µF 35V	1	AC

Note : The parts marked "*" are used in voltage more than 250V.
"§"MARK: SPARE PARTS-DELIVERY SECTION

	REF. NO.	PART NO.	§	DESCRIPTION	Q'TY	CODE
	C3,81	VCEAB31HW335M	J	Capacitor 3.3 µF 50V	2	AA
★	C4	RC-KZA004DRE0	J	Capacitor 0.015 µF 25V	1	AA
	C5	VCEAB31CW476M	J	Capacitor 47 µF 16V	1	AA
	C6,7,20 C70	RC-KZA040DRE0	J	Capacitor 0.01 µF 16V	4	AA
★	C8	RC-KZ104QDRE0	J	Capacitor 0.1 µF 25V	1	AB
	C9	VCEAB31CW107M	J	Capacitor 100 µF 16V	1	AB
	C10	VCEAB31EW226M	J	Capacitor 22 µF 25V	1	AA
	C80	VCEAB31HW474M	J	Capacitor 0.47 µF 50V	1	AA
	CF1	RCRS-A010DRE0	J	Ceramic filter (4.00MHz)	1	AD
★	D1-5,8,9	RH-DZA011DRE0	J	Diode (11ES1)	7	AB
	D7,70, D81-84 D86-88	RH-DZA024DRE0	J	Diode (US1060M)	9	AA
	IC1	RH-IZA153DRE0	J	LSI	1	AX
	Q1	RH-TZA035DRE0	J	Transistor 2SB793(R,S)	1	AC
	Q2	RH-TZA063DRE0	J	Transistor 2SA933S	1	AB
	Q20,40, Q82-84	RH-TZA046DRE0	J	Transistor DTA143ES	5	AB
	Q80	RH-TZA047DRE0	J	Transistor DTA114YS	1	AB
	Q81	RH-TZA051DRE0	J	Transistor DTD143EA	1	AD
	Q86	RH-TZA097DRE0	J	Transistor DTB143ES	1	AC
	R1	RR-DZ391PDRE0	J	Resistor 390 Ω 1/2W	1	AA
	R2	RR-DZ751PDRE0	J	Resistor 750 Ω 1/2W	1	AA
	R3,20	RR-DZ153NDRE0	J	Resistor 15k Ω 1/4W	2	AA
	R5,51,70 R80	RR-DZ102NDRE0	J	Resistor 1k Ω 1/4W	4	AA
	R40	RR-DZ332NDRE0	J	Resistor 3.3k Ω 1/4W	1	AA
	R50	RR-DZ105NDRE0	J	Resistor 1M Ω 1/4W	1	AA
	R52,53	RR-DZ103NDRE0	J	Resistor 10k Ω 1/4W	6	AA
	R90-93					
	R71	RR-DZ273NDRE0	J	Resistor 27k Ω 1/4W	1	AA
	R94-97	RR-DZ472NDRE0	J	Resistor 4.7k Ω 1/4W	4	AA
	RY1,4	RRLY-A020DRE0	J	Relay (OJ-SH-112LM)	2	AH
	RY2,3	RRLY-A013DRE0	J	Relay (OMI-SH-112D)	2	AM
	SP40	RALM-A007DRE0	J	Buzzer (PKM22EPT)	1	AF
	T1	RTRNPA036DRE0	J	Transformer	1	AS
	VRS1	RH-VZA010DRE0	J	Varistor (15G471K-T)	1	AE
	ZD1	RH-EZA081DRE0	J	Zener diode (UZ16BSB)	1	AA
	ZD2	RH-EZA105DRE0	J	Zener diode (RD4.3ESB2)	1	AA
	3- 2	FPNLCA487WRK0	U	Control panel flame with key unit : R-6G50(B)	1	BD
		FPNLCA488WRK0	U	Control panel flame with key unit : R-6G50(W)	1	BD
		FPNLCA558WRK0	U	Control panel flame with key unit : R-6G52(B)	1	BD
		FPNLCA559WRK0	U	Control panel flame with key unit : R-6G52(W)	1	BD
	3- 3	JBTN-A454WRF0	U	Open button : R-6G50(B)/R-6G52(B)	1	AD
		JBTN-A455WRF0	U	Open button : R-6G50(W)/R-6G52(W)	1	AD
	3- 4	MSPRDA012WRE0	U	Open button spring	1	AA
	3- 5	XHPSD30P12XS0	U	Screw; control unit mtg.	5	AA

CONTROL PANEL PARTS : R-6R50(B)(W)/R-6R70(B)(W)

	3- 1	CPWBFA172WRK0	J	Control unit : R-6R50(B)(W)	1	BT
		CPWBFA173WRK0	J	Control unit : R-6R70(B)(W)	1	BS
	3- 1A	QCNCMA088DRE0	J	9-pin connector (A)	1	AC
	3- 1B	QCNCMA131DRE0	J	5-pin connector (B)	1	AC
		QCNCMA078DRE0	J	4-pin connector (B)	1	AD
	3- 1C	QCNCMA130DRE0	J	5-pin connector (E)	1	AC
	3- 1D	QCNCWA030DRE0	J	12-pin connector (G)	1	AE
	3- 1E	RV-KXA016DRE0	J	Fluorescent display tube	1	AX
	C1	RC-KZA032DRE0	J	Capacitor 0.1 µF 50V	1	AB
	C2	VCEAB31VW337M	J	Capacitor 330 µF 35V	1	AC
	C3,81	VCEAB31HW335M	J	Capacitor 3.3 µF 50V	2	AA
★	C4	RC-KZA004DRE0	J	Capacitor 0.015 µF 25V	1	AA
	C5	VCEAB31CW476M	J	Capacitor 47 µF 16V	1	AA
	C6,7,20 C70	RC-KZA040DRE0	J	Capacitor 0.01 µF 16V	4	AA
★	C8	RC-KZ104QDRE0	J	Capacitor 0.1 µF 25V	1	AB
	C9	VCEAB31CW107M	J	Capacitor 100 µF 16V	1	AB

Note : The parts marked "*" are used in voltage more than 250V.
"§"MARK: SPARE PARTS-DELIVERY SECTION

	REF. NO.	PART NO.	§	DESCRIPTION	Q'TY	CODE
	C10	VCEAB31EW226M	J	Capacitor 22 µF 25V	1	AA
	C80	VCEAB31HW474M	J	Capacitor 0.47 µF 50V	1	AA
	CF1	RCRS-A010DRE0	J	Ceramic filter (4.00MHz)	1	AD
★	D1-5,8,9	RH-DZA011DRE0	J	Diode (11ES1)	7	AB
	D7,70, D81-88	RH-DZA024DRE0	J	Diode (US1060M)	10	AA
	IC1	RH-IZA153DRE0	J	LSI	1	AX
	Q1	RH-TZA035DRE0	J	Transistor 2SB793(R,S)	1	AC
	Q2	RH-TZA063DRE0	J	Transistor 2SA933S	1	AB
	Q20,40, Q82-85	RH-TZA046DRE0	J	Transistor DTA143ES	6	AB
	Q80	RH-TZA047DRE0	J	Transistor DTA114YS	1	AB
	Q81	RH-TZA051DRE0	J	Transistor DTD143EA	1	AD
	Q86	RH-TZA097DRE0	J	Transistor DTB143ES	1	AC
	R1	RR-DZ391PDRE0	J	Resistor 390 Ω 1/2W	1	AA
	R2	RR-DZ751PDRE0	J	Resistor 750 Ω 1/2W	1	AA
	R3,20	RR-DZ153NDRE0	J	Resistor 15k Ω 1/4W	2	AA
	R5,51,70 R80	RR-DZ102NDRE0	J	Resistor 1k Ω 1/4W	4	AA
	R40	RR-DZ332NDRE0	J	Resistor 3.3k Ω 1/4W	1	AA
	R50	RR-DZ105NDRE0	J	Resistor 1M Ω 1/4W	1	AA
	R71	RR-DZ273NDRE0	J	Resistor 27k Ω 1/4W	1	AA
	R90-93	RR-DZ103NDRE0	J	Resistor 10k Ω 1/4W	4	AA
	R94-98	RR-DZ472NDRE0	J	Resistor 4.7k Ω 1/4W	5	AA
	RY1,4,5	RRLY-A020DRE0	J	Relay (OJ-SH-112LM)	3	AH
	RY2,3	RRLY-A013DRE0	J	Relay (OMI-SH-112D)	2	AM
	SP40	RALM-A007DRE0	J	Buzzer (PKM22EPT)	1	AF
	T1	RTRNPA036DRE0	J	Transformer	1	AS
	VRS1	RH-VZA010DRE0	J	Varistor (15G471K-T)	1	AE
	ZD1	RH-EZA081DRE0	J	Zener diode (UZ16BSB)	1	AA
	ZD2	RH-EZA105DRE0	J	Zener diode (RD4.3ESB2)	1	AA
	3- 2	FPNLCA492WRK0	U	Control panel flame with key unit : R-6R50(B)	1	BD
		FPNLCA493WRK0	U	Control panel flame with key unit : R-6R50(W)	1	BD
		FPNLCA494WRK0	U	Control panel flame with key unit : R-6R70(B)	1	BD
		FPNLCA495WRK0	U	Control panel flame with key unit : R-6R70(W)	1	BD
	3- 3	JBTN-A454WRF0	U	Open button : R-6R50(B)/R-6R70(B)	1	AD
		JBTN-A455WRF0	U	Open button : R-6R50(W)/R-6R70(W)	1	AD
	3- 4	MSPRDA012WRE0	U	Open button spring	1	AA
	3- 5	XHPSD30P12XS0	U	Screw; control unit mtg.	5	AA

DOOR PARTS

4	CDORFA284WRK0	U	Door assembly, complete : R-6G50(B)/R-6R50(B)/R-6R70(B)	1	BQ
	CDORFA296WRK0	U	Door assembly, complete : R-6G50(W)/R-6R52(W)/R-6R70(W)	1	BQ
	CDORFA346WRK0	U	Door assembly, complete : R-6G52(B)	1	BQ
	CDORFA347WRK0	U	Door assembly, complete : R-6G52(W)	1	BQ
4- 1	DDORFA226WRK0	U	Door panel assembly	1	BG
4- 2	GCOVHA145WRF0	U	Choke cover	1	AL
4- 3	GWAKPA073WRF0	U	Door frame : Block color model	1	AR
	GWAKPA076WRF0	U	Door frame : White color model	1	AR
4- 4	HDECQA081WRF0	U	Door sash : Block color model	1	AE
	HDECQA084WRF0	U	Door sash : White color model	1	AE
4- 5	LSTPPA053WRF0	U	Lower latch head	1	AC
4- 6	LSTPPA056WRF0	U	Upper latch head	1	AC
4- 7	MSPRTA075WRE0	U	Latch spring	1	AC
4- 8	NSFTTA039WRE0	U	Latch shaft	1	AC
4- 9	PGLSPA148WRE0	U	Door glass : R-6G50(B)/R-6R50(B)/R-6R70(B)	1	AZ
	PGLSPA152WRE0	U	Door glass : R-6G50(W)/R-6R50(W)/R-6R70(W)	1	AZ
	PGLSPA176WRE0	U	Door glass : R-6G52(B)	1	AZ
	PGLSPA177WRE0	U	Door glass : R-6G52(W)	1	AZ

OVEN PARTS

5- 1	FROLPA030WRK0	U	Roller stay assembly	1	AU
5- 2	NTNT-A018WRH0	U	Turntable	1	AT
5- 3	DOVN-A161WRK0	U	Oven cavity : R-6G50/R-6G52	1	BP

Note : The parts marked "*" are used in voltage more than 250V.
"§"MARK: SPARE PARTS-DELIVERY SECTION

REF. NO.	PART NO.	§	DESCRIPTION	Q'TY	CODE
	DOVN-A170WRK0	U	Oven cavity : R-6R50/R-6R70	1	BP
5- 4	GCABDA031WRP0	U	Rear cabinet	1	AW
5- 5	LANGFA080WRP0	U	Chassis support	1	AH
5- 6	GCOVHA157WRP0	U	Noise unit cover : R-6G50/R-6G52/R-6R70	1	AD
5- 7	LANGQA120WRP0	U	Noise unit angle : R-6G50/R-6G52/R-6R70	1	AE
	LANGQA127WRP0	U	Noise unit angle : R-6R50	1	AF
5- 8	PZETEA020WRP0	U	Noise insulation sheet : except R-6R50	1	AC
5- 9	LBNDKA017WRP0	U	High voltage capacitor holder	1	AC
5-11	PCUSGA176WRE0	U	Air intake cushion L	1	AE
5-12	PCUSGA178WRP0	U	Air intake cushion B	1	AC
5-13	PCUSGA179WRP0	U	Air intake cushion C	1	AC
5-14	PDUC-A245WRP0	U	Air intake duct	1	AE
5-15	PGISHA030WRE0	U	Heat insulator	3	AF
5-16	PREFHA024WRE0	U	Heat reflector	1	AT
5-17	MLEVPA116WRF0	U	Switch lever	1	AD
5-19	PHOK-A036WRF0	U	Latch hook	1	AN
5-20	FFANJA013WRK0	J	Fan blade	1	AE
5-20A	LSTY-0030WRE0	J	Fan retainer	1	AA
5-21	PDUC-A246WRK0	U	Fan duct	1	AL
5-22	LANGHA007WRP0	U	Partition plate	1	AF
5-23	LANGQA116WRP0	U	Oven lamp mounting plate	1	AF
5-24	LANGTA203WRP0	U	Cavity bracket	1	AE
5-25	LSTPPA054WRF0	U	Cord anchorage(upper) : R-6G50/R-6G52/R-6R70	1	AC
	LSTPPA060WRF0	U	Cord anchorage(upper) : R-6R50	1	AC
5-26	LSTPPA055WRF0	U	Cord anchorage(lower)	1	AC
5-27	MHNG-A139WRP0	U	Lower oven hinge	1	AF
5-28	MHNG-A140WRP0	U	Upper oven hinge	1	AE
5-29	MLEVFA049WRP0	U	Open lever	1	AE
5-30	NCPL-A023WRF0	U	Coupling	1	AH
5-31	NSFTTA038WRE0	U	Open shaft	1	AB
5-32	PCOVPA147WRE0	U	Waveguide cover	1	AE
5-33	PCOVPA158WRE0	U	Thermal protection cover(small) : except R-6R50	1	AD
5-34	PCUSGA175WRP0	U	Partition cushion	1	AD
5-35	PCUSUA009WRP0	U	Cushion	2	AA
5-36	PSLDMA088WRP0	U	Aluminum tape	4	AB
5-37	PDUC-A244WRP0	U	Exhaust duct	1	AK
5-38	PDUC-A248WRP0	U	Air duct	1	AE
5-39	PFPF-A045WRE0	U	Thermal protection sheet(Right)	1	AK
5-40	PFPF-A046WRE0	U	Thermal protection sheet(Left)	1	AK
5-41	PFPF-A051WRE0	U	Thermal protection sheet(Small) : except R-6R50	1	AK
5-42	PGISHA031WRE0	U	Insulator	2	AF
5-43	PGLSPA147WRE0	U	Oven lamp screen glass	1	AH
5-44	PSLDHA042WRP0	U	Thermal protection cover(Left)	1	AH
5-45	PSLDHA043WRP0	U	Thermal protection cover(Right)	1	AK
5-46	PCUSUA127WRP0	U	Air duct cushion	1	AB
5-47	PCUSUA128WRP0	U	Cavity cushion	1	AC
5-48	PCUSGA193WRP0	U	Thermo cushion	1	AD
5-49	PCUSGA165WRP0	U	Cushion	1	AB

MISCELLANEOUS

6- 1	FAMI-A022WRK0	U	High rack assembly(135mm)	1	AU
6- 2	FAMI-A023WRK0	U	Low rack assembly(50mm)	1	AT
6- 3	TAPLKA035WRR0	U	FTZ card : R-6G50/R-6G52	1	AB
	TAPLKA037WRR0	U	FTZ card : R-6R50	1	AA
	TAPLKA038WRR0	U	FTZ card : R-6R70	1	AA
6- 4	TCADCA148WRR0	U	Cook book(for grill cooking)	1	AN
6- 5	TCADCA189WRR0	U	Cook book(for microwave cooking)	1	AU
6- 6	TINS-A070WRR0	U	Operation manual (ENGLISH, GERMAN, FRENCH)	1	AK
	TINS-A105WRR0	U	Operation manual (ITALIAN, SPANISH, DUTCH) : R-6G50/R-6R50/R-6R70	1	AK
6- 7	PGISHA034WRE0	U	Skewer support : R-6R50/R-6R70	1	AH
6- 8	TSPCQA041WRR0	U	Model name label : R-6G50(B)	1	AC
	TSPCQA042WRR0	U	Model name label : R-6G50(W)	1	AC
	TSPCQA060WRR0	U	Model name label : R-6G52(B)	1	AC
	TSPCQA061WRR0	U	Model name label : R-6G52(W)	1	AC
	TSPCQA046WRR0	U	Model name label : R-6R50(B)	1	AC
	TSPCQA047WRR0	U	Model name label : R-6R50(W)	1	AC

Note : The parts marked "*" are used in voltage more than 250V.
"§"MARK: SPARE PARTS-DELIVERY SECTION

REF. NO.	PART NO.	§	DESCRIPTION	Q'TY	CODE
	TSPCQA048WRR0	U	Model name label : R-6R70(B)	1	AC
	TSPCQA049WRR0	U	Model name label : R-6R70(W)	1	AC
6- 9	FW-VZA519WRE0	U	Wire harness(for cord connector) : R-6G50/R-6G52/R-6R70	1	AE
* 6-10	QW-QZA073WRE0	U	High voltage wire A	1	AD
* 6-11	QW-QZA074WRE0	U	High voltage wire B	1	AE
6-12	TLABSA017WRR0	U	Fuse label : R-6G50/R-6G52/R-6R70	1	AB
6-13	FW-VZA562WRE0	U	Wire harness(main) : R-6G50/R-6G52	1	BA
	FW-VZA568WRE0	U	Wire harness(main) : R-6R50	1	AZ
	FW-VZA572WRE0	U	Wire harness(main) : R-6R70	1	BA
6-14	FW-VZA554WRE0	U	Wire harness(for heater socket)	1	AL
6-15	LBNDKA004WRE0	U	Wire tie	2	AB
6-16	LBNDKA005WRE0	U	Wire holder	2	AB
6-17	LHLDWQ004YBE0	J	Purse lock "L"	2	AA
6-18	TCAUHA021WRR0	U	Caution label	1	AC
6-19	TCAUHA040WRE0	U	High temperature caution	1	AC
6-20	TSPCNA831WRR0	U	Rating label : R-6G50/R-6G52/R-6R70	1	AC
	TSPCNA859WRR0	U	Rating label : R-6R50	1	AC
6-21	JHNDMA008WRE0	U	Handle : R-6R50/R-6R70	2	AF
6-22	LANG-A006WRE0	U	Prong : R-6R50/R-6R70	2	AH
6-23	NSFTTA041WRE0	U	Skewer : R-6R50/R-6R70	1	AQ
6-24	TCADHA104WRR0	U	Touch sheet	1	AC
6-25	TLABMA157WRR0	U	Menu label : R-6G50(B)/R-6R50(B)/R-6R70(B)	1	AC
	TLABMA159WRR0	U	Menu label : R-6G50(W)/R-6R50(W)/R-6R70(W)	1	AC

SCREWS, NUTS, WASHERS AND RING

7- 1	LX-BZA066WRE0	U	Door pin screw	1	AB
7- 2	LX-BZ0202WRE0	U	Screw; upper and lower latch head mtg.	2	AB
7- 3	LX-WZA014WRE0	U	Washer; door pin screw mtg.	1	AA
7- 4	XCPSD30P08X00	U	Screw; door frame, surge relay mtg.	7	AA
7- 5	XCPSD30P08000	U	Screw; door frame mtg.	3	AA
7- 6	XCPSD40P08000	U	Screw; door sash mtg.	3	AA
7- 7	XNESD30-24000	U	Nut; door pin screw mtg.	1	AA
7- 8	XNESD40-32000	U	Nut; skewer support (for R-6R50/R-6R70 only), upper and lower latch head mtg.	4	AA
7- 9	XWSSD30-08000	U	Washer; door pin screw mtg.	1	AA
7-10	LX-CZA035WRE0	U	Screw; rear cabinet mtg.	4	AA
7-11	XHTSD40P08RV0	U	Screw; chassis support relay unit, air intake duct, surge resistor, monitor resistor, noise unit, high voltage capacitor holder mtg.	8	AA
7-12	LX-BZA060WRE0	U	Screw; skewer support mtg. : R-6R50/R-6R70	2	AA
7-13	XCTSD40P06000	U	Screw; noise unit cover, wire holder mtg.	3	AA
7-14	XFPSD30P14000	U	Screw; cord connector mtg. : R-6G50/R-6G52/R-6R70	1	AA
7-15	XFPSD40P08K00	U	Screw; noise unit, high voltage rectifier assembly and touch control earth wire mtg	3	AA
7-16	XHSSB40P08000	U	Screw; Oven lamp access cover mtg. : R-6G50(B)/R-6G52(B)/R-6R50(B)/R-6R70(B)	1	AA
	XHSSC40P08000	U	Screw; Oven lamp access cover mtg. : R-6G50(W)/R-6G52(W)/R-6R50(W)/R-6R70(W)	1	AA
7-18	XFPSD30P10000	U	Screw; fuse holder mtg. : R-6G50/R-6G52/R-6R70	1	AA
7-19	XBTUW40P06000	U	Screw; grill heating element, waveguide cover, cavity bracket mtg.	4	AA
7-20	XWWSD50-06000	U	Washer; power transformer mtg.	1	AA
7-21	XBPSD40P25000	U	Screw; fan motor mtg.	2	AA
7-22	XNESD40-32000	U	Nut; fan motor, cord anchorages mtg.	3	AA
7-23	LX-BZA037WRE0	U	Screw; outer case cabinet mtg. : R-6G50(B)/R-6G52(B)/R-6R50(B)/R-6R70(B)	5	AA
	LX-BZA036WRE0	U	Screw; outer case cabinet mtg. : R-6G50(W)/R-6G52(W)/R-6R50(W)/R-6R70(W)	5	AA
7-24	LX-BZA054WRE0	U	Screw; insulator mtg.	2	AB
7-25	LX-BZA056WRE0	U	Screw; outer case cabinet mtg. : R-6G50(B)/R-6G52(B)/R-6R50(B)/R-6R70(B)	4	AA
	LX-BZA057WRE0	U	Screw; outer case cabinet mtg. : R-6G50(W)/R-6G52(W)/R-6R50(W)/R-6R70(W)	4	AA

Note : The parts marked "*" are used in voltage more than 250V.
"§"MARK: SPARE PARTS-DELIVERY SECTION

REF. NO.	PART NO.	§	DESCRIPTION	Q'TY	CODE
7-26	LX-BZA061WRE0	U	Screw; rotisserie motor seembly (R-6R50/R-6R70 only), heater socket and oven lamp mounting plate mtg.	6	AA
7-27	LX-CZA020WRE0	U	Screw; upper and lower oven hinge mtg.	5	AA
7-28	LX-CZA030WRE0	U	Screw; exhaust duct, partition plate mtg.	2	AA
7-29	LX-EZA004WRE0	U	Screw; latch hook mtg.	2	AA
7-30	XBPSD40P30000	U	Screw; cord anchorages mtg.	1	AA
7-31	XBPSD50P10KS0	U	Screw; power transformer mtg.	2	AA
7-32	XBPUW30P08000	U	Screw; cavity bracket mtg.	1	AA
7-33	XFPSD30P08000	U	Screw; cooling thermal cut-out(100 °C), magnetron thermal cut-out(115 °C), heater thermal cut-out(125 °C) mtg.	6	AA
7-34	XFPSD40P08000	U	Screw; turntable motor mtg.	2	AA
7-35	XFPSD40P10000	U	Screw; magnetron, turntable motor cover mtg.	5	AA
7-36	XFTSD40P08K00	U	Screw; earth angle mtg.	1	AA
7-37	XNEUW40-32000	U	Nut: reflector insulation mtg.	1	AB
7-38	XOTSD40P12RV0	U	Screw; base plate mtg.	8	AA
7-39	XTTSD40P12000	U	Screw; control panel and fan duct mtg.	2	AA
7-40	XWHSD40-08000	U	Washer; cord anchorages mtg.	1	AA
7-42	LX-BZA059WRE0	U	Screw; fan screw : R-6R50/R-6R70	2	AB

HOW TO ORDER REPLACEMENT PARTS

To have your order filled promptly and correctly, please furnish the following information.

1. MODEL NUMBER
2. REF. NO.
3. PART NO.
4. DESCRIPTION

(RDP1303U)

REPLACEMENT PARTS LIST

This replacement parts list shows interchangeability of marked (★) parts on the control panel parts to the alterations of product locations.
This list has been prepared to show LISTED PART NO. along with the USED PART NO. side by side.

(RDQ1101U)

REF. NO.	LISTED PART NO.	USED PART NO.
C4	RC-KZA004DRE0	VCKYAT1EX153N
C8	RC-KZ104QDRE0	VCTYPG1EF104Z
D1 etc.	RH-DZA011DRE0	VHD11ES1///-1

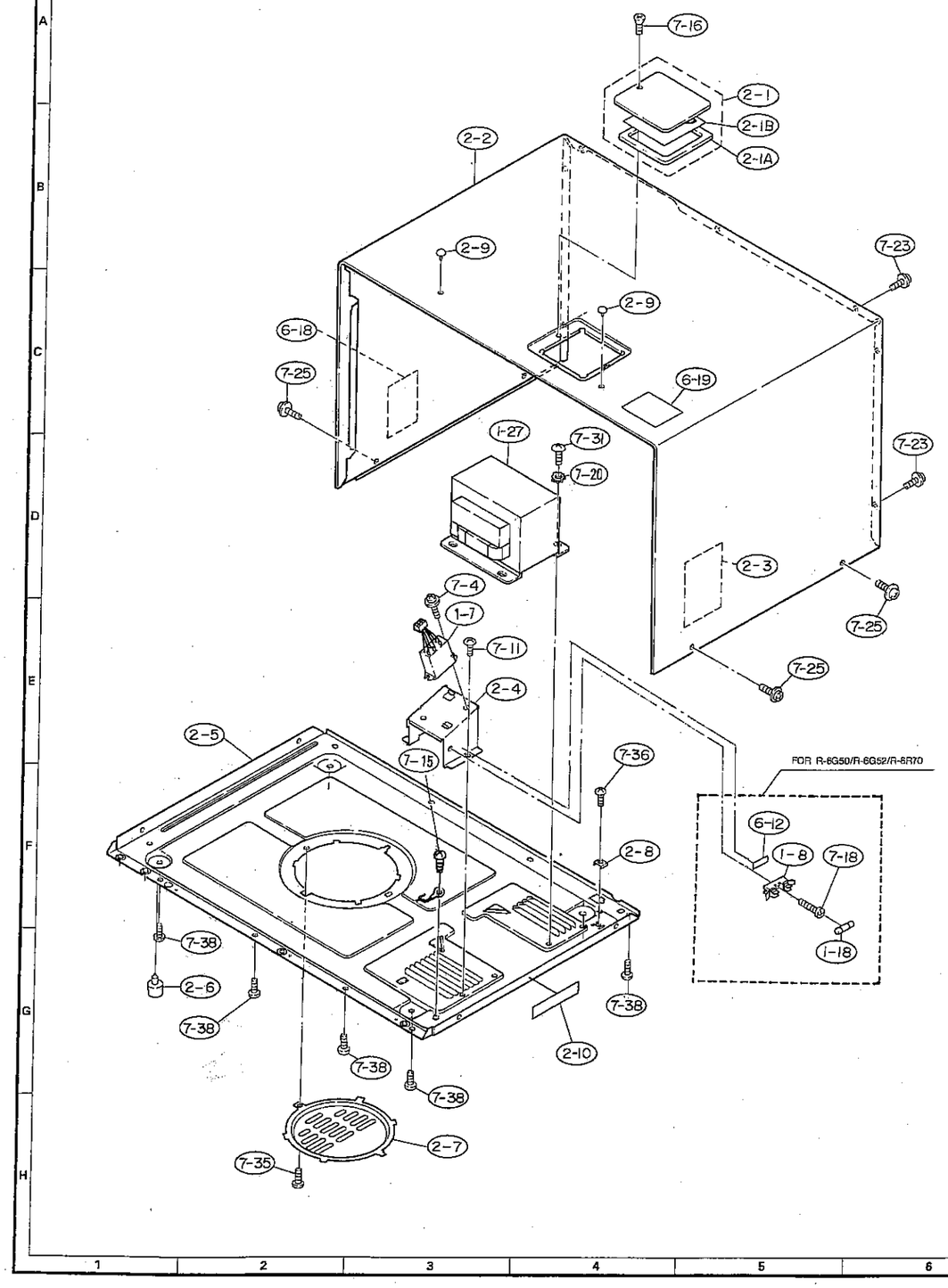
NOTE :
Common resistors have been omited from this parts list, such as 1/4W and 1/2W carbon resistors below is a compatibility list and cross referrence information.

	PART CODE LISTED	PART CODE COMPATIBLE	DESCRIPTION
A	RR-DZ103NDRE0	VRD-ST2DF103J	1/4W 10k Ω small shape carbon film
B	RR-DZ102DDRE0	VRD-ST2EF102J	1/4W 1.0k Ω carbon film.
C	RR-DZ101PDRE0 (↓1 ↓2)	VRD-ST2HA101J (↓3 ↓4)	1/2W 100 Ω carbon film.

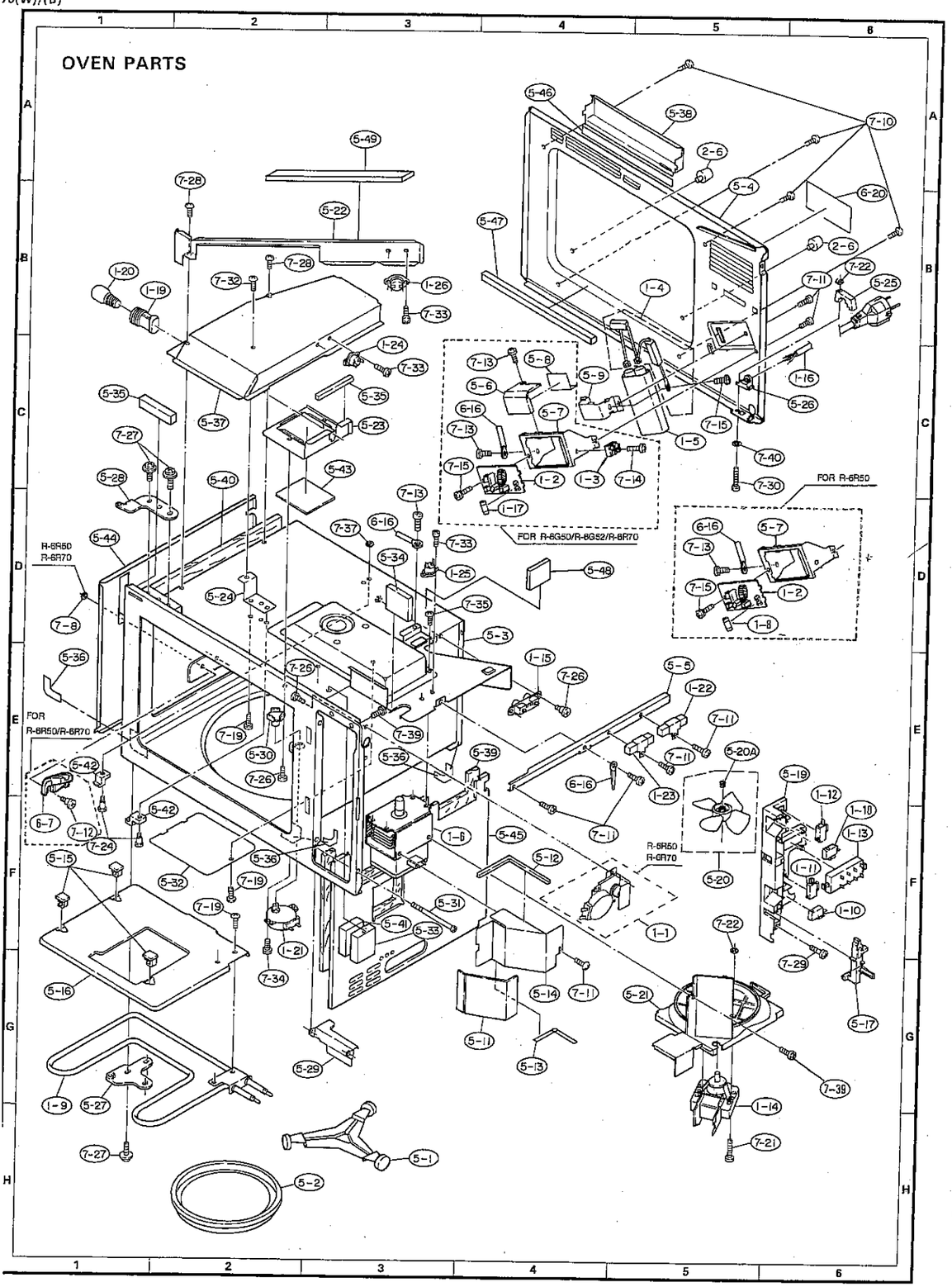
PART CODE LISTED
*1. D : Carbon film resistor.
*2. N : 1/4W and small shape.
D : 1/4W.
P : 1/2W.
*3. D : Carbon film resistor.
*4. D : 1/4W and small shape.
E : 1/4W.
H : 1/2W.

(RDQ1103U)

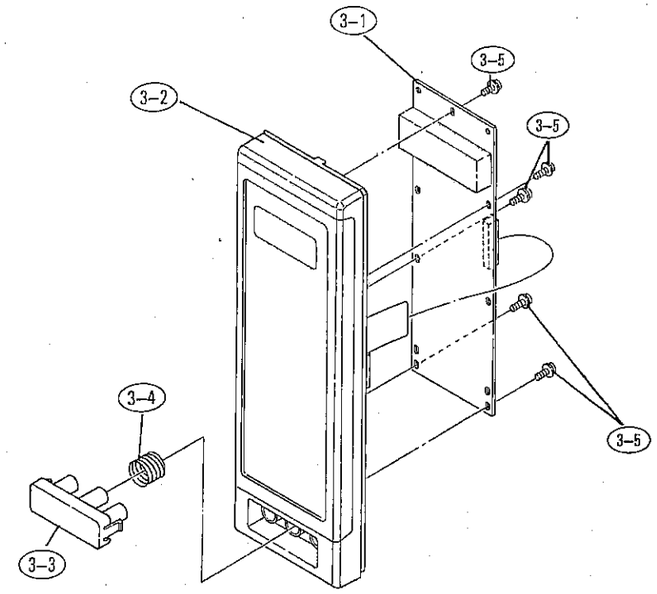
CABINET PARTS



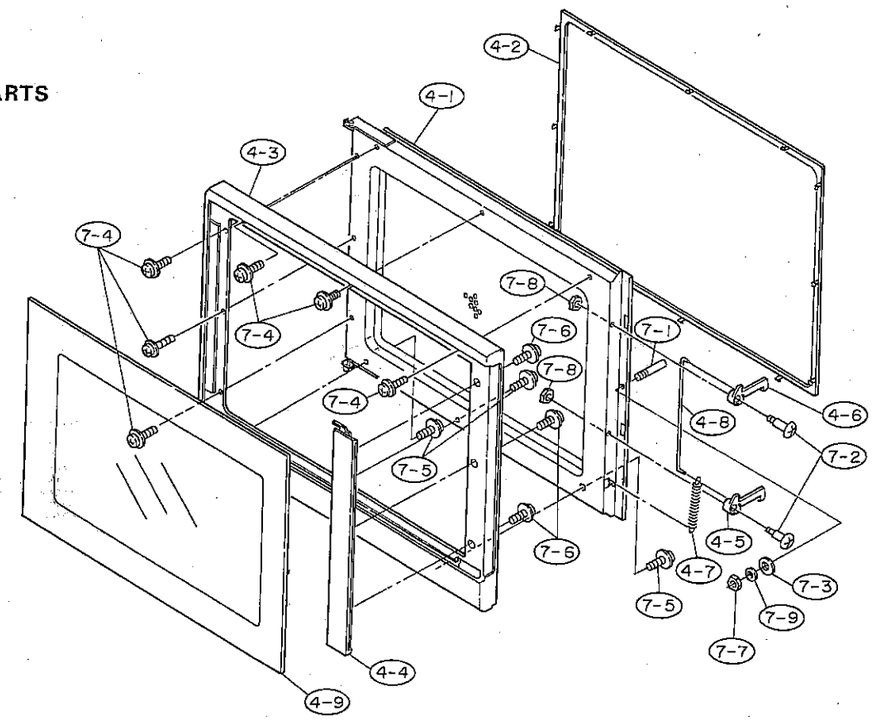
OVEN PARTS



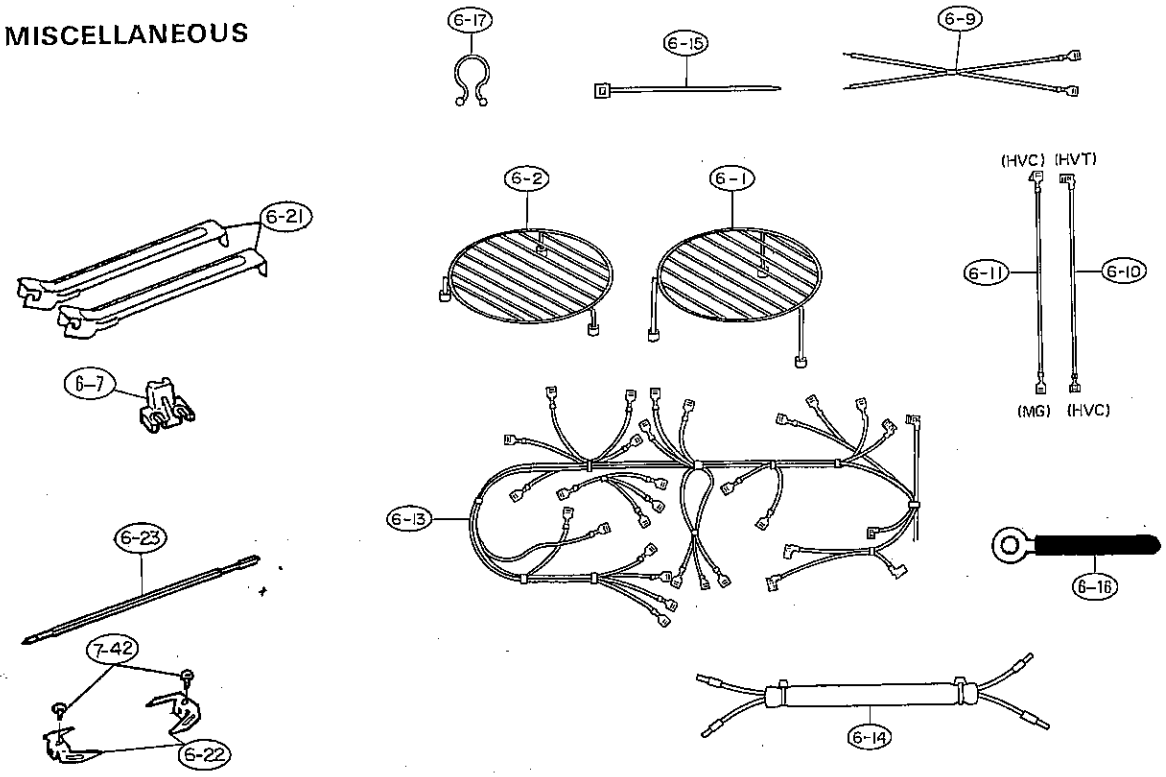
CONTROL PANEL PARTS



DOOR PARTS



MISCELLANEOUS



PACKING AND ACCESSORIES